# 2001 NATIONAL HOUSEHOLD SURVEY ON DRUG ABUSE

## PROCEDURES FOR EDITING SUPPLEMENTARY SELF-ADMINISTERED DATA IN THE 2001 NHSDA COMPUTER-ASSISTED INTERVIEW

Prepared for the 2001 Methodological Resource Book

RTI Project No. 7190
Contract No. 283-98-9008

Deliverable No. 28

Prepared for:

Substance Abuse and Mental Health Services Administration
Rockville, MD 20857

Prepared by:

RTI International
Research Triangle Park, NC 27709

June 2003

# 2001 NATIONAL HOUSEHOLD SURVEY ON DRUG ABUSE

## PROCEDURES FOR EDITING SUPPLEMENTARY SELF-ADMINISTERED DATA IN THE 2001 NHSDA COMPUTER-ASSISTED INTERVIEW

Prepared for the 2001 Methodological Resource Book

RTI Project No. 7190
Contract No. 283-98-9008

Deliverable No. 28

Prepared for:

Substance Abuse and Mental Health Services Administration
Rockville, MD 20857

Prepared by:

RTI International
Research Triangle Park, NC 27709

June 2003

## Table of Contents

## List of Exhibits

# 1.0 Introduction

This is the second in a series of three reports that document procedures developed for editing computer-assisted interviewing (CAI) data from the 2001 National Household Survey on Drug Abuse (NHSDA). The first report in the series, *General Principles and Procedures for Editing Drug Use Data in the 2001 NHSDA Computer-Assisted Interview*,[1] is designed as the starting point for providing background on basic CAI editing issues and procedures. As such, the first document discusses issues surrounding the transition from data collection based on paper-and-pencil interviewing (PAPI) to a CAI format. The first document in the series also discusses the following topics:

- general principles associated with editing of the CAI data, including the assignment and meaning of standard NHSDA codes (and principles for assigning relevant "not applicable" types of codes);
- initial processing steps, including (a) general procedures for coding of "OTHER, Specify" data, (b) creation of edit-ready raw variables, (c) initial processing of age-related variables, (d) identification of usable cases, (e) investigation of potentially problematic response patterns, and (f) edits of date-dependent variables when the interview date was judged to be questionable; and
- edits involving the key self-administered drug use variables in the Cigarettes through Sedatives sections, including edits of (a) the lead lifetime use variables (i.e., gate questions), where respondents indicated whether they have ever used the drug of interest, (b) the recency-of-use variables, where respondents who indicated lifetime use of the drug indicated when they last used that drug, (c) the 12-month and 30-day frequency variables, where respondents who indicated use of a drug in the 12 months or 30 days prior to the interview indicated the number of days they used that drug in the period of interest, and (d) remaining variables in a module.

The CAI instrument allowed a private mode of data collection for respondents to answer questions pertaining to drug use and other sensitive topics. This self-administration was accomplished through use of audio computer-assisted self-interviewing (ACASI), in which respondents could read the questions on the computer screen and enter their responses directly into the laptop computer. All respondents also were encouraged to listen to an audio recording of the questions on headphones and then enter their answers into the computer. This prevented interviewers (or others in the household) from knowing what questions the respondents were being asked and how they were answering. This feature of ACASI was especially useful for respondents with limited reading ability because they could listen to the questions instead of having to read them. For demographic questions, computer-assisted personal interviewing (CAPI) was used in which interviewers read the questions and respondents gave their answers aloud to the interviewers, who then entered the responses into the computer.

The CAI instrument was divided into core and noncore sections. Core sections, such as key demographic characteristics and drug use prevalence questions, were designed to stay relatively constant from 1 year to the next to permit measurement of trends in drug use. In contrast, the content of noncore

[1]Kroutil, L. A. (2003, June). *2001 National Household Survey on Drug Abuse: General principles and procedures for editing drug use data in the 2001 NHSDA computer-assisted interview* (for inclusion in the 2001 methodological resource book; report prepared for Office of Applied Studies, Substance Abuse and Mental Health Services Administration, under Contract No. 283-98-9008, Deliverable No. 28; RTI/07190.395). Research Triangle Park, NC: RTI International.

sections could change considerably across years to measure new topics of interest or to rotate certain topics in or out of the interview. In noncore sections, therefore, questions or entire modules could be added or deleted, or the wording of existing questions could change from 1 year to the next.

This report is designed to document how the supplementary, or noncore, self-administered data were edited from the 2001 CAI instrument. Because ACASI was used for these sections, the remainder of the report refers to them as noncore ACASI sections or modules. Edit procedures for the interviewer-administered CAPI sections are described in a third companion document.

Section 2.0 of this report discusses general issues associated with the editing of the noncore ACASI data. Section 3.0 focuses on specific issues associated with the editing of individual noncore ACASI modules, where applicable. The 2001 CAI instrument contained the following noncore ACASI modules:

- Special Drugs,
- Risk/Availability,
- Specialty Cigarettes,
- Substance Dependence and Abuse,
- Special Topics,
- Marijuana Purchases,
- Substance Treatment,
- Health Care,
- Adult Mental Health Service Utilization (administered only to adults),
- Social Environment (administered only to adults),
- Parenting Experiences (administered only to parent/legal guardian in dwelling units where a 12- to 17-year-old also was selected for an interview),
- Youth Experiences (administered only to youths aged 12 to 17),
- Serious Mental Illness (administered only to adults), and
- Youth Mental Health Service Utilization (administered only to youths aged 12 to 17).

The content of these modules is described in Section 3.0.

# 2.0 General Edit Issues for the Noncore ACASI Data

The following general issues were relevant to the editing of the noncore ACASI data:

- comparison of noncore ACASI data with related data on drug use (or nonuse) from the core section of the interview,
- implementation of general "legitimate skip" fills,
- handling of missing data, and
- handling of common inconsistencies within a given noncore ACASI section.

## 2.1 Comparison of Noncore ACASI Data with Core Drug Use Data

The contingent questioning strategy in CAI allowed respondents' answers from core modules or other preceding sections to determine whether respondents (a) should not be asked certain questions in a noncore module, or (b) should not be administered an entire module at all. For example, if respondents reported in the core Heroin section that they never used heroin, there was no need to ask them further questions in the Special Drugs module pertaining to smoking, sniffing, or injecting heroin. Similarly, questions in the Substance Dependence and Abuse module pertaining to use of cocaine, heroin, hallucinogens, inhalants, pain relievers, tranquilizers, stimulants, or sedatives were relevant only for respondents who had used those substances within the 12 months prior to the interview.[2] In addition, the Substance Treatment module was relevant only for respondents who reported some lifetime use of alcohol or other drugs, not counting cigarettes. Consequently, respondents who reported in the core modules that they had never used alcohol, illicit drugs, or prescription-type psychotherapeutics for nonmedical reasons (i.e., pain relievers, tranquilizers, stimulants, or sedatives) were not asked the questions in the Substance Treatment module.

### 2.1.1 Situations in Which Noncore ACASI Data Were Edited with Respect to Core Drug Use Data

Core drug use data (typically, recency of use) were used to edit noncore ACASI data in situations when noncore ACASI questions had been skipped because respondents were nonusers of the drug or had not used in the period of interest. The following codes were typically assigned in situations when questions or entire sections were skipped because the respondent was a nonuser or did not use a drug within the period of interest:

> 91 (or 991, or 9991, etc.) = NEVER USED [DRUG(s) OF INTEREST, and
> 93 (or 993, or 9993, etc.) = USED [DRUG] BUT NOT IN THE PERIOD OF INTEREST.

[2]For the Substance Dependence and Abuse module, respondents were routed into the questions pertaining to dependence or abuse symptoms for cocaine, heroin, or stimulants if they reported use of these drugs in the past 12 months in the Special Drugs module, even if their corresponding recency variables in the core suggested less recent use. For alcohol and marijuana, frequency-of-use data for the past 12 months or past 30 days also were relevant for determining whether to ask respondents the questions about dependence or abuse for these two drugs. Infrequent users of these two drugs in the past 12 months were skipped out of the dependence and abuse questions. Only those respondents who reported using cigarettes or specialty cigarettes (bidis or clove cigarettes) in the past 30 days were asked the cigarette questions in the Substance Dependence and Abuse Module.

For example, if a respondent never used hallucinogens, then all of the skipped questions in the Substance Dependence and Abuse module that pertained to hallucinogens were assigned codes of 91. Similarly, if a respondent used hallucinogens but not in the past 12 months, then the skipped questions in the Substance Dependence and Abuse module that pertained to hallucinogens were assigned codes of 93.

The following analogous codes also were assigned through machine editing:

> 81 (or 981, or 9981, etc.) = NEVER USED [DRUG(s)] Logically assigned, and
> 83 (or 983, or 9983, etc.) = USED [DRUG] BUT NOT IN THE PERIOD OF INTEREST Logically assigned.

These codes were given values in the 80s to signify that existing values were overwritten during machine editing. For example, the recency-of-use variables for psychotherapeutics (i.e., pain relievers, tranquilizers, stimulants, and sedatives) were assigned codes of 81 when the only indication of lifetime nonmedical use involved over-the-counter (OTC) medications. Thus, if the recency-of-use variable for pain relievers was assigned a code of 81 during the edits for that core module, then any data in the Substance Dependence and Abuse module for pain relievers were similarly overwritten with codes of 81.

Additional special codes were assigned in the Substance Treatment module when respondents reported lifetime treatment for alcohol or other drugs (not counting cigarettes) but they had never used a particular drug of interest (e.g., heroin). These special codes are described as part of the more specific discussion of edits for the Substance Treatment module (Section 3.7).

Other special situations occurred in specific noncore ACASI modules (e.g., Special Drugs) when core drug use data were used to edit the related noncore variables. These are discussed in connection with a specific module's edits in Section 3.0.

### 2.1.2 Situations in Which Noncore ACASI Data Were Not Edited with Respect to Core Drug Use Data

With few exceptions (discussed in Section 3), drug use data from core modules were used to edit noncore ACASI data only when respondents were legitimately skipped out of corresponding noncore questions based on prior answers in the relevant core section (or sections). Otherwise, noncore ACASI items generally were not edited for consistency with core items, and core items were not edited to make them consistent with answers in noncore ACASI modules. Consequently, inconsistencies could remain between related core and noncore ACASI variables.

For example, respondents who reported in the core Heroin module that they used heroin at some point in their lifetime would be asked questions in the Special Drugs module pertaining to smoking of heroin, sniffing of heroin, or use of heroin with a needle. It would be possible for respondents in the Special Drugs module to report more recent use of heroin by one or more of these routes than what they reported in the core Heroin module for when they last used heroin (e.g., last used heroin more than 12 months ago based on the core Heroin recency question, but last smoked heroin more than 30 days ago but within the past 12 months). In this example, the Special Drugs data for heroin were not edited to make them consistent with the core Heroin recency-of-use variable, nor was the core Heroin recency variable edited to make it consistent with respondents' answers to the heroin questions in the Special Drugs module.

The rationale for not doing further detailed editing between core and noncore modules was to permit more reliable measurement of drug use trends based on data from the core modules, which were designed to remain fairly constant across survey years. In contrast, the content of the noncore modules could change considerably from year to year. Consequently, use of noncore data to edit core data could affect measurement of trends if noncore items were present or absent in a given survey year. Similarly, use of core data as the final arbiter to resolve inconsistencies between related core and noncore items could result in loss of noncore data that might be useful to analysts.

## 2.2 Implementation of General "Legitimate Skip" Fills

Some noncore ACASI modules contained lead questions that governed skip logic within the module in order to determine whether respondents should be asked further questions about the topic of interest. For example, the Substance Treatment module included a lead question about whether respondents had ever received treatment for their use of alcohol or other drugs (not counting cigarettes), based on these respondents reporting lifetime user of alcohol or at least one other drug. If respondents answered "no" to this lead question, there was no need for them to be asked additional questions about the actual receipt of treatment services.

In addition, some modules were intended to be administered only to specific age groups. For example, the entire Social Environment module in 2001 was designed to be administered only to respondents aged 18 or older. Similarly, the Youth Experiences module was designed to be administered only to respondents aged 12 to 17. The CAI logic routed respondents out of these modules if their ages were outside the required ranges for administering the modules.

A third general situation involving assigned legitimate skip codes occurred when respondents were asked questions about some other condition (e.g., arrests other than the ones listed, treatment for some other drug). If respondents answered affirmatively, they were asked to specify a response (e.g., specifying the other offense for which they were arrested in the past 12 months). The CAI program skipped respondents out of these "OTHER, Specify" questions if they answered the lead question negatively (e.g., not arrested for any other offenses in the past 12 months). Therefore, legitimate skip codes were assigned to the edited "OTHER, Specify" variable when the other condition did not apply.

The following general code was assigned when respondents were skipped out of a given question and it could be determined *unambiguously* that the question did not apply based on the answer to a previous question or based on some other criteria (e.g., age of the respondent):

99 (or 999, or 9999, etc.) = LEGITIMATE SKIP.

For example, if a respondent was 18 or older and the Youth Experiences questions had been skipped, codes of 99 (or 999, etc.) were assigned in the machine-editing process to the skipped Youth Experiences variables. Similarly, if a respondent had used alcohol or some other drug at least once in his or her lifetime but answered the lifetime treatment question TX01 as "no," the CAI program skipped the respondent out of all remaining questions about receipt of treatment services. Codes of 99 (or 999, etc.) were assigned to the skipped Substance Treatment variables in this situation to signify that the respondent had used alcohol or drugs at least once but had never received substance abuse treatment.

The following analogous code also was assigned through machine editing:

89 (or 989, or 9989, etc.) = LEGITIMATE SKIP Logically assigned.

The value of 89 signified that existing values were overwritten during machine editing. For example, if a respondent was somehow routed into the Youth Experiences module but that respondent was subsequently classified as being 18 or older, any answers that the respondent gave in the Youth Experiences module were overwritten with codes of 89 (or 989, etc.). These codes signified that the adult respondent logically was not eligible to be asked the Youth Experiences module's questions.

As in the general procedures described in the first volume of the machine edit documentation,[3] edits in these types of situations required the ability to determine *unambiguously* that a question did not apply. For example, if respondents answered the lead question TX01 ("Have you ever received treatment or counseling for your use of alcohol or any drug, not counting cigarettes?") as "don't know" or "refused," the CAI skip logic treated these responses as equivalent to a negative response. In these situations, all questions were skipped pertaining to receipt of treatment. From the standpoint of respondent burden, there often may be little value in asking further questions about a particular topic, such as alcohol or other drug treatment, if respondents could not indicate unambiguously whether the topic was relevant at all.

On the other hand, responses of "don't know" or "refused" to a lead question that governs a skip pattern are ambiguous—they do not provide an analyst with conclusive information one way or the other. Consequently, such responses could be thought of as *potentially* affirmative responses, as opposed to inferring that they are negative responses. For this reason, when respondents answered a lead question as "don't know" or "refused," missing values were retained for the questions that the CAI program skipped, unless data existed elsewhere to infer a nonmissing value for a variable that had been skipped (see Section 2.3).

## 2.3 Handling of Missing Data

The occurrence of missing data was not completely eliminated in CAI because respondents had the option of answering "don't know" or "refused" to questions when asked for a response. In addition, questions often were skipped if respondents answered a lead question as "don't know" or "refused," as noted above.

Where possible, however, an important aim of the editing in the noncore ACASI sections was to use data provided by the respondent to replace missing values with nonmissing values. Special codes that were assigned to indicate when editing was done are discussed in Section 3 in connection with section-specific edits.

For example, the series of questions in TX04 (i.e., specific locations where respondents received treatment in the past 12 months) was skipped if respondents answered "don't know" or "refused" to question TX02 ("During the past 12 months, that is, since [DATEFILL] have you received treatment or

[3]Kroutil, L. A. (2003, June). *2001 National Household Survey on Drug Abuse: General principles and procedures for editing drug use data in the 2001 NHSDA computer-assisted interview* (for inclusion in the 2001 methodological resource book; report prepared for Office of Applied Studies, Substance Abuse and Mental Health Services Administration, under Contract No. 283-98-9008, Deliverable No. 28; RTI/07190.395). Research Triangle Park, NC: RTI International.

counseling for your use of alcohol or any drug, not counting cigarettes?").[4] If these respondents reported last receiving treatment in the past 12 months, it could logically be inferred that question TX02 should have been answered as "yes." If these respondents also indicated a specific location in question TX25 for where they last received treatment, that answer could be logically assigned to the corresponding item from the question TX04 series.

When respondents answered "don't know" or "refused" to a lead question and it was not possible to replace missing values with nonmissing values, the following standard codes for missing data that were used in prior NHSDAs were applied:

94 (or 994 or 9994, etc.) = DON'T KNOW (DK),

97 (or 997 or 9997, etc.) = REFUSED (REF), and

98 (or 998 or 9998, etc.) = BLANK (i.e., nonresponse [NR]).

When a lead question retained a code of 97 after other editing had been done, refusal codes were assigned to the skipped questions within that branch (i.e., the refusal was "propagated"). That is, it was logically inferred that a refusal to the lead question was a blanket refusal to answer any questions on that topic. When a lead question retained a code of 94 after other editing had been done, values of "blank" were retained in the questions that had been skipped.

Similarly, when all items in a noncore ACASI module pertaining to a particular drug had been skipped because the core recency variable had a final value of 97, that refusal was propagated onto the skipped noncore variables. When all items in a noncore ACASI module pertaining to a drug had been skipped because a core recency variable had a missing value of 98 (e.g., if a lead question on lifetime use of a drug was answered as "don't know"), the skipped noncore variables retained a value of "blank."

A third situation in which refusals were propagated occurred when respondents refused to answer a lead question to an "OTHER, Specify" variable (e.g., whether they had been arrested in the past 12 months for some other offense). When respondents refused to answer such questions, the "OTHER, Specify" questions were skipped, and refusal codes were assigned to the edited specify variables.

The following additional missing data code could be assigned to noncore ACASI variables:

85 (or 985, or 9985, etc.) = BAD DATA Logically assigned.

As was the case for the processing of data in the core modules, period-specific variables pertaining to the past 30 days or past 12 months were assigned bad data codes if there was some question about the value stored by the CAI system for the interview date; this processing was done to the "raw" variables.[5]

---

[4]"DATEFILL" indicates the date filled in by the CAI program to establish a point of reference for respondents to use in answering the question.

[5]Kroutil, L. A. (2003, June). *2001 National Household Survey on Drug Abuse: General principles and procedures for editing drug use data in the 2001 NHSDA computer-assisted interview* (for inclusion in the 2001 methodological resource book; report prepared for Office of Applied Studies, Substance Abuse and Mental Health Services Administration, under Contract No. 283-98-9008, Deliverable No. 28; RTI/07190.395). Research Triangle Park, NC: RTI International.

In addition, checks for patterned responses in core modules resulted in data from one or more core modules being wiped out (see reference in footnote 5). When this occurred, we also wiped out corresponding data in noncore modules. For example, if a respondent's pain relievers data were wiped out because of patterned responses in that module and the respondent was routed to questions pertaining to pain relievers in the Substance Dependence and Abuse module, we also wiped out the pain relievers data in the Substance Dependence and Abuse module and assigned bad data codes. Other situations where "bad data" values were assigned within a given module are discussed in Section 3.0.

## 2.4 Handling of Common Inconsistencies Within a Noncore ACASI Section

The contingent questioning strategy in CAI was designed to reduce inconsistencies in respondents' answers by skipping them out of questions that did not apply to them. Consequently, respondents had limited opportunity to give answers that would be inconsistent with prior answers. Although this approach reduced the opportunity for respondents to answer inconsistently, it did not completely eliminate inconsistencies in the noncore ACASI sections.

One common type of data inconsistency that occurred in the noncore ACASI sections involved situations when respondents indicated something in "OTHER, Specify" items that corresponded to preceding related items. When respondents specified something that corresponded to an item they had been asked about previously but they had not answered that previous item as "yes," the editing procedures assigned a value of "yes" to the relevant question. The following code typically was used when a response of "yes" was logically inferred:

3 = Yes LOGICALLY ASSIGNED.

If there was a lead to the "OTHER, Specify" question that was in the form of a "yes/no" question (e.g., "During the past 12 months, were you arrested and booked for some other offense besides these that have been named?"), the affirmative answer was retained in the lead to the "OTHER, Specify" question. The redundant specify code also was retained to indicate to analysts the source of the logically inferred "yes" value.

In the Special Topics section, for example, the SP03 question series in 2001 asked respondents to indicate specific offenses for which they were arrested and booked in the past 12 months. It was possible for respondents to indicate that they were arrested and booked for "some other offense" and then to specify a crime that corresponded to a prior question in the series. For example, respondents might specify a response that corresponded to burglary or breaking and entering, even though they had already been asked about arrests for this offense. In this situation, if the burglary/breaking and entering question was not answered as "yes," the editing procedures assigned a value to the edited variable to indicate that an affirmative response was inferred.

A second type of potential inconsistency concerned situations in which respondents answered an entire series of questions as "no," but an answer to a prior question suggested that at least one of the subsequent questions should have been answered as "yes." A final, "other" type of question typically existed in the series as well (e.g., some other offense, treatment in some other location, treatment for some other drug). When this type of situation occurred, the edits typically inferred some kind of "yes" or unknown value onto the final other question in the series. Examples are discussed in Section 3.0 in connection with module-specific edits.

# 3.0 Edit Issues for Specific Noncore ACASI Modules

As indicated in the introduction, the 2001 CAI instrument contained the following noncore ACASI modules:

- Special Drugs,
- Risk/Availability,
- Specialty Cigarettes,
- Substance Dependence and Abuse,
- Special Topics,
- Marijuana Purchases,
- Substance Treatment,
- Health Care,
- Adult Mental Health Service Utilization (administered only to adults),
- Social Environment (administered only to adults),
- Parenting Experiences (administered only to parent/legal guardian in dwelling units where a 12- to 17-year-old also was selected for an interview),
- Youth Experiences (administered only to youths aged 12 to 17),
- Serious Mental Illness (administered only to adults), and
- Youth Mental Health Service Utilization (administered only to youths aged 12 to 17).

This section briefly describes the content of these individual modules. This section also discusses the processing of the edited variables for these modules, along with any specific issues that pertained to editing of the data in a given module.

In addition, a separate validity study was conducted in 2001 for respondents aged 12 to 25 ($n$ = 2,123). This study assessed the validity of self-reported drug use by collecting hair and urine samples from consenting respondents. Because the content of the noncore modules differed considerably between the two instruments, noncore self-administered data were not edited for validity study respondents, except for the pregnancy variables PREGNANT and PREGMOS. Edits for PREGNANT and PREGMOS for validity study respondents were consistent with the procedures described in Section 3.8.

## 3.1 Special Drugs Module

The Special Drugs module asked about the smoking and sniffing of heroin; use of heroin, methamphetamine, other stimulants, cocaine, or other drugs with a needle for nonmedical reasons; general needle use behaviors (e.g., needle sharing); and where respondents got the last needle that they used. The content of this module in 2001 changed considerably relative to 1999 and 2000.

Respondents who never used heroin, methamphetamine, other stimulants, or cocaine were not asked questions in the Special Drugs module that pertained to these drugs. In addition, respondents who indicated that they never used heroin, methamphetamine, other stimulants, cocaine, or any other drug with a needle for nonmedical reasons did not need to be asked questions about general needle use behaviors or the source of the last needle they used.

Consequently, an important aspect of the processing of variables in this module consisted of assigning codes of 91, 93, or 99 (see Sections 2.1.1 and 2.2) to variables that had been skipped because the questions did not apply. Exhibit 1 describes specific edits that were implemented in the Special Drugs module when items were skipped in this module.

Beginning in 2001, respondents who reported in the core Heroin module that they were lifetime heroin users but who answered "no" to all questions about smoking heroin (question SD01), sniffing heroin (question SD03), or using it with a needle (question SD08) were asked a follow-up question SDHEUSE to determine how these respondents administered the heroin they had reported using. SDHEUSE was an "enter all that apply" type of question that allowed respondents to report multiple ways that they used heroin. SDHEUSE included response options for smoking heroin, sniffing heroin, using heroin with a needle, or use of heroin "some other way." Respondents who reported using heroin "some other way" were asked to specify in question SDHEUSE2 what this "other" mode of heroin administration was.

Discrete variables from SDHEUSE were set up for smoking heroin (HEOTSMK), sniffing heroin (HEOTSNF), using heroin with a needle (HEOTNDL), use of heroin some other way (HEOTOTH), and the other mode of administration that was specified (HEOTSP). If respondents had at least one affirmative response in questions SD01, SD03, or SD08 about how they had used heroin, SDHEUSE and SDHEUSE2 were skipped. In this situation, the edited variables HEOTSMK through HEOTSP were assigned legitimate skip codes.

If respondents were routed to SDHEUSE and the respondents reported at least one way in SDHEUSE for how they used heroin, the variables HEOTSMK through HEOTOTH were coded as 1 or 6. Documentation for these codes was as follows:

1 = Response entered

6 = Response not entered.

If respondents did not choose the "You used heroin some other way" response in SDHEUSE (but they chose at least one other response from SDHEUSE), HEOTOTH was coded as 6, and HEOTSP was assigned a legitimate skip code.

When respondents answered SDHEUSE as "don't know" or "refused," the variables HEOTSMK through HEOTOTH all were coded with the relevant code of 94 (don't know) or 97 (refused). If HEOTOTH had a refusal code, that refusal was propagated onto HEOTSP as well.

**Exhibit 1. Specific Skip Logic Edits for the Special Drugs Module**

| Response Pattern | Edit |
|---|---|
| Variables were skipped because the respondent (R) never used the drug of interest, and there were no other indications elsewhere in the Special Drugs module that the respondent ever used this drug. | Codes of 91 were assigned to the edited variables. For example, if the R never used heroin, the edited variables HERSMOKE, HRSMKREC, HERSNIFF, HRSNFREC, HERNEEDL, and HRNDLREC were assigned codes of 91. |
| Variables were skipped because the R refused to indicate in the corresponding core module whether he or she ever used the drug of interest, and there were no other indications elsewhere in the Special Drugs module that the respondent ever used this drug. | Codes of 97 (i.e., refused) were assigned to the edited variables. Thus, for example, a refusal from the heroin recency-of-use variable in the core was propagated onto the heroin variables in the Special Drugs module. |
| Variables were skipped because the R did not know in the core module whether he or she ever used the drug of interest, and there were no other indications elsewhere in the Special Drugs module that the R ever used this drug. | The skipped Special Drugs variables pertaining to this drug retained a value of 98 (i.e., blank). |
| For methamphetamine, other stimulants, and cocaine, there were no indications elsewhere in the Special Drugs module of the R reporting use of this drug as "some other drug" that he or she used with a needle. The R was a lifetime user of the drug of interest but the corresponding needle recency variable was skipped because: | |
| ● The R never used the drug with a needle. | Codes of 93 were assigned to the corresponding needle recency variable (e.g., CONDLREC) to indicate that the R used the drug but never with a needle. |
| ● The R refused to indicate whether he or she had ever used the drug with a needle. | A code of 97 were assigned to the edited needle recency variable (i.e., the refusal was propagated). |
| ● The R did not know whether he or she had ever used that drug with a needle. | The edited needle recency variable retained a code of 98 (i.e., blank). |
| The R was a lifetime user of heroin but relevant recency variables for smoking heroin (HRSMKREC), sniffing heroin (HRSNFREC) or using it with a needle (HRNDLREC) were skipped because: | |
| ● The R never used heroin via the route of interest. | Codes of 93 were assigned to the relevant heroin recency variable(s) (e.g., HRSMKREC for smoking heroin) to indicate that the R used heroin but not in that particular way. |
| ● The R refused to indicate whether he or she had ever used heroin via the route of interest. | A code of 97 were assigned to the relevant heroin recency variable(s) (i.e., the refusal was propagated). |
| ● The R did not know whether he or she had ever used heroin via the route of interest. | The edited heroin recency variable(s) retained a code of 98 (i.e., blank). |
| (In the case of heroin use with a needle, there were no other indications elsewhere in the Special Drugs module of heroin use with a needle.) | The special situation in 2001 in which respondents reported lifetime use of heroin in the core but reported that they never smoked, sniffed, or used it with a needle was discussed previously in the text. |

(*continued*)

**Exhibit 1 (Continued)**

| Response Pattern | Edit |
|---|---|
| Questions SD10c and SD11 pertaining to use of other stimulants with a needle had been skipped because methamphetamine was the only stimulant that the R had reported ever using. | If the lifetime methamphetamine variable METHDES was coded as 1 (i.e., "yes") and all other lifetime stimulant variables had values of 2 (i.e., "no"), the edited other stimulant needle variables OSTNEEDL and OSTNLREC (corresponding to questions SD10c and SD11, respectively) were assigned codes of 99 (legitimate skip). This edit was not done if SD10c and SD11 were skipped when METHDES had the only affirmative response, but at least one of the other lifetime stimulant variables had a value of "don't know" or "refused." |
| General needle use variables were skipped because the R reported never using heroin, methamphetamine, other stimulants, cocaine, or any other drug (question SD05; edited variable OTDGNEDL) with a needle. | Codes of 99 (i.e., legitimate skip) were assigned to all of the general needle use variables that had been skipped (GNNDREUS, GNNDLSH1, GNNDCLEN, GNNDLSH2, and GNNDGET). |
| General needle use variables were skipped because question SD05 was answered as "no" (OTDGNEDL=2); there were no affirmative reports of heroin, methamphetamine, other stimulants, or cocaine with a needle, but one or more of the lifetime needle use variables for these drugs was answered as "don't know" or "refused." | When there was no affirmative report of use of heroin, methamphetamine, other stimulants, or cocaine with a needle, question SD05 was worded as follows: "Have you ever, even once, used a needle to inject *any drug* that was not prescribed for you ..." (wording not italicized in the interview). Therefore, codes of 99 (i.e., legitimate skip) were assigned to all of the general needle use variables that had been skipped (GNNDREUS, GNNDLSH1, GNNDCLEN, GNNDLSH2, and GNNDGET) because it could be inferred that the response of "no" in question SD05 pertained to use of any drug with a needle. However, no editing was done to any responses of "don't know" or "refused" in the lifetime needle use variables pertaining to heroin (HERNEEDL), methamphetamine (MTHNEEDL), other stimulants (OSTNEEDL), or cocaine (COCNEEDL). |
| General needle use variables were skipped because question SD05 was refused (OTDGNEDL=97), and there were no affirmative reports of heroin, methamphetamine, other stimulants, or cocaine with a needle. | The refusal from OTDGNEDL was propagated to the general needle use variables GNNDREUS, GNNDLSH1, GNNDCLEN, GNNDLSH2, and GNNDGET. |
| General needle use variables were skipped because the R reported never using a needle to inject "any other drug." However, the R reported lifetime use of heroin, methamphetamine, other stimulants, or cocaine with a needle. | This was an error in the initial CAI logic for 2001 due to the logic not being updated from 2000 to 2001. (The question pertaining to use of "any other drug" with a needle in 2001 was SD05. In 2000, question SD05 pertained to use of a needle to inject *any* drug.)<br><br>The CAI logic was corrected in June 2001. If respondents prior to fielding of this correction were incorrectly skipped out of the questions corresponding to GNNDREUS, GNNDLSH1, GNNDCLEN, GNNDLSH2, and GNNDGET, these variables were assigned a code of 90. Documentation for this code of 90 is as follows:<br><br>90 = NOT ASKED THE QUESTION Logically assigned |

If respondents had not already reported in SDHEUSE that they smoked, sniffed, or used heroin with a needle but they specified use of heroin in one (or more) of these particular ways in HEOTSP, a code of 3 was assigned to the relevant variable HEOTSMK, HEOTSNF, or HEOTNDL. Documentation for this code of 3 was as follows: 3 = Response entered LOGICALLY ASSIGNED

In turn, HEOTSMK, HEOTSNF, and HEOTNDL were used to edit the corresponding lifetime heroin variables HERSMOKE, HERSNIFF, and HERNEEDL, respectively. For example, if HEOTSMK indicated that the respondent had smoked heroin (HEOTSMK=1 or 3), HERSMOKE was edited to indicate that the respondent was logically inferred to have smoked heroin at least once in his or her lifetime. Because the recency variable for heroin smoking (HRSMKREC) had been skipped, HRSMKREC was set to 9 (Used at some point in the lifetime LOGICALLY ASSIGNED). Similar edits

were done when heroin sniffing was logically inferred based on HEOTSNF. For use of heroin with a needle, however, respondents who indicated in SDHEUSE that they had used heroin with a needle were routed to question SD09, regarding when they last used heroin with a needle. However, respondents would still skip question SD09 if they did not indicate use of heroin with a needle in SDHEUSE but they specified use with a needle as "some other way" that they used heroin.

Exhibit 2 describes other edit issues and specific edits that were implemented in the Special Drugs module. For example, lifetime users of heroin could report that they smoked heroin at least once but not indicate when they last smoked it. The general edit was to assign a nonspecific value to the edited recency variable (i.e., HRSMKREC) to indicate that the respondent smoked heroin at some point in his or her lifetime. In some special situations, however, it was possible to infer that respondents could not have smoked heroin in the past 12 months. In these situations, respondents reported last using heroin more than 12 months ago, and there were no responses for other heroin-related questions in the Special Drugs module to indicate that these respondents had used heroin in the past 12 months.

Beginning in 2001, respondents were asked in question SD05 (edited variable OTDGNEDL) whether they ever used a needle to inject "some other drug" with a needle (if respondents previously reported lifetime use of heroin, methamphetamine, other stimulants, or cocaine with a needle) or "any drug" with a needle (if respondents had not previously indicated use of any of the above drugs with a needle). If question SD05 was answered as "yes" (OTDGNEDL=1), respondents were then asked to specify what (other) drug(s) they used with a needle. Respondents could specify up to five drugs that they had injected (edited variables OTDGNDLA through OTDGNDLE).

Consequently, it was possible for respondents to have reported in a core drug module that they never used a particular drug that was covered in the Special Drugs module but then specify use of that drug with a needle in OTDGNDLA through OTDGNDLE. For example, respondents could indicate in the core Heroin module that they never used heroin but then specify lifetime injection of heroin in OTDGNDLA through OTDGNDLE. In this situation, no editing was done to the core drug data. However, these respondents were logically inferred in the relevant Special Drugs variables to be users of that particular drug at some point in the lifetime. Thus, for example, if respondents reported in the core Heroin module that they never used heroin but then they specified heroin as "some other drug" that they used with a needle, the edited lifetime heroin needle use variable HERNEEDL was assigned a code of 3 (Yes LOGICALLY ASSIGNED) and the heroin needle recency variable HRNDLREC was assigned a code of 9 (Used at some point in the lifetime LOGICALLY ASSIGNED).

Respondents also could report in the Special Drugs module that they used a needle to inject a drug for nonmedical reasons, even though they previously reported that they never used marijuana, cocaine, heroin, hallucinogens, inhalants, prescription pain relievers, prescription tranquilizers, prescription stimulants, or prescription sedatives. Beginning in 2001, however, respondents were asked to specify what "other" drug(s) they had injected. Thus, it was possible to identify respondents in 2001 who corroborated their report of lifetime injection drug use (e.g., if injection of anabolic steroids was reported) despite having previously reported nonuse of all drugs covered in the core modules. Similarly, it was possible from "OTHER, Specify" data on other drugs that respondents had injected to identify those whose needle use was probably limited to legitimate, medical uses (e.g., injection of antibiotics). Therefore, we logically inferred that respondents had never used needles for nonmedical purposes if (a) they were lifetime nonusers of all drugs covered in the core; (b) they indicated that they never engaged in

**Exhibit 2. Edit Issues (Other Than Skip Patterns) Pertaining to the Special Drugs Module**

| Issue | Edits Implemented |
|---|---|
| The respondent (R) was a lifetime user of heroin and reported smoking, sniffing, or using heroin with a needle at least once in his or her lifetime, but did not know or refused to indicate when he or she last smoked, sniffed, or injected heroin. | The edits depended on the most recent use of heroin reported in the corresponding core heroin recency variable:<br>• In general, the edited heroin recency variables in the Special Drugs module (HRSMKREC, HRSNFREC, HRNDLREC) were assigned a code of 9 (i.e., used at some point in the lifetime).<br>• However, if the core heroin recency indicated that the R last used heroin more than 12 months ago and there was no other indication in the Special Drugs module that the R had used heroin in the past 12 months (see below), then the edited variables pertaining to smoking, sniffing, or injection of heroin were assigned a code of 13 (i.e., More than 12 months ago LOGICALLY ASSIGNED). This edit did not apply if the R answered "did not know" or refused to report when he or she last used heroin in a particular way (e.g., smoking it) but reported last using it a different way in the past 12 months (e.g., with a needle). |
| The R was a lifetime user of methamphetamine, other stimulants, or cocaine and reported using the relevant drug with a needle at least once in his or her lifetime, but did not know or refused to indicate when he or she last used that drug with a needle. | The edits depended on the most recent use reported in the corresponding core recency variable:<br>• In general, the edited needle recency variable (e.g., CONDLREC for cocaine) was assigned a code of 9 (i.e., used at some point in the lifetime).<br>• However, if the core recency indicated that the R last used the drug more than 12 months ago, then the edited needle recency variable pertaining to that drug was assigned a code of 13 (i.e., More than 12 months ago LOGICALLY ASSIGNED). |
| The R reported in the core drug modules that he or she never used one or more of the following: heroin (HERREC=91), methamphetamine (METHREC=81 or 91), other stimulants (STIMREC=81 or 91), or cocaine (COCREC=91). However, the R specified use of one or more of these drugs as "some other drug" that he or she had ever injected. | No editing was done to the core drug data. However, the R was logically inferred in the Special Drugs data to be a lifetime user of that drug with a needle, even though the core drug data indicated that the R never used that drug. The corresponding needle recency variable was set to a value of 9 (Used at some point in the lifetime LOGICALLY ASSIGNED). For example, if the R reported in the Heroin module that he or she never used heroin but specified injection of heroin as "some other drug," the lifetime heroin needle use variable HERNEEDL was set to 3 (Yes LOGICALLY ASSIGNED), and the heroin needle recency HRNDLREC was set to 9. Similar edits were done for the needle use variables pertaining to methamphetamine, other stimulants, and cocaine. |
| The R had been logically inferred to be a nonuser of prescription-type stimulants, because the only drugs that the R reported using in the Stimulants module were over-the-counter (OTC) drugs. In addition the R did not specify use of methamphetamine or other stimulants with a needle as "some other drug" that the R used with a needle. | Any data in the methamphetamine and other stimulant needle variables MTHNEEDL, MTNDLREC, OSTNEEDL, and OSTNLREC were wiped out and replaced with a code of 81 (i.e., NEVER USED METHAMPHETAMINE/STIMULANTS Logically assigned), for consistency with the inference that the R was a lifetime nonuser of prescription-type stimulants. |
| The R was asked questions about use of methamphetamine and other stimulants with a needle because the R reported lifetime use of methamphetamine and "some other stimulant" in the Stimulants module (and no other stimulant). However, only methamphetamine was specified as the "other" stimulant. | The R was treated as being a lifetime user only of methamphetamine. Therefore, any data in the other stimulant needle use variables OSTNEEDL and OSTNLREC were replaced with codes of 89 (LEGITIMATE SKIP Logically assigned). This edit indicated that the R logically should have skipped the questions pertaining to OSTNEEDL and OSTNLREC. |

*(continued)*

**Exhibit 2 (Continued)**

| Issue | Edits Implemented |
|---|---|
| The R was logically inferred to be a lifetime user of methamphetamine with a needle (MTHNEEDL=3) based on the R's "OTHER Specify" data in the variables OTDGNDLA through OTDGNDLE. | If the lifetime other stimulant needle use variable OSTNEEDL did not have data indicating that the R had or had not used a needle to inject other stimulants (i.e., OSTNEEDL=1, 2, 3, or 4), whatever raw data existed in questions SD10c and SD11 were reassigned to the corresponding edited variables OSTNEEDL and OSTNLREC, respectively. |
| The R was logically inferred to be a lifetime user of methamphetamine (METHDES=3) based on "OTHER, Specify" data in the Stimulants module, and the methamphetamine needle variable MTHNEEDL had missing data. | If OSTNEEDL=2, the R was logically inferred not to have used a needle to inject methamphetamine (i.e., MTHNEEDL=4, where 4=No LOGICALLY ASSIGNED). If the methamphetamine needle recency variable MTNDLREC had been skipped, it was assigned a code of 93 (USED METHAMPHETAMINE BUT NEVER WITH A NEEDLE). When the R had not indicated lifetime methamphetamine use in questions ST01 or STREF1 in the core, question SD10c (corresponding to OSTNEEDL) asked whether the R had used a needle to inject *any* stimulant. Therefore, it could be logically inferred that the R had never used a needle to inject methamphetamine. |
| The R specified lifetime use of more than five drugs with a needle. | Priority was given to retaining as many unique mentions as possible for other drugs that the R used with a needle. Thus, multiple mentions of the same drug would be counted only once. Priority also would be given to retaining mentions of drugs that were covered in the Special Drugs module that the R had not previously reported using with a needle (e.g., if the question corresponding to MTHNEEDL had been answered as "no" but methamphetamine had been specified as "some other drug" that the R used with a needle). Conversely, retention of "OTHER, Specify" codes corresponding to drugs that the R had already reported using with a needle were given lower priority.<br><br>If there were still more than five mentions of unique drugs after the above steps, priority was given to retaining the most serious drugs according to the Drug Enforcement Administration (DEA) drug schedule (e.g., first priority to retaining mention of Schedule I drugs that have no approved medical use in the United States, second priority to retaining Schedule II drugs, etc.).<br><br>Finally, after the drugs had been ranked according to their severity based on the DEA drug schedule, if mention of more than five drugs still remained, the codes were retained in the order they appeared in the data. |
| The R reported using a needle to inject a drug for nonmedical reasons (SD05=1) but the R previously reported never using marijuana, cocaine, heroin, hallucinogens, inhalants, prescription pain relievers, prescription tranquilizers, prescription stimulants, or prescription sedatives. | No editing was done if the R<br><br>● specified needle use involving a drug that could be abused or had psychoactive properties (e.g., steroids, one or more categories of drugs covered in the core NHSDA modules that were not covered elsewhere in Special Drugs, such as prescription pain relievers), or<br>● reported one or more "risky" needle use behaviors (reusing a needle, needle sharing, or cleaning a needle with bleach).<br><br>The R was inferred not to be a lifetime nonmedical needle user (OTDGNEDL=4) if the R<br><br>● specified use of a drug that was typically not abused and did not have psychoactive properties (e.g., if injection of antibiotics was specified) and<br>● reported never reusing a needle, sharing a needle (before or after someone had used it), or cleaning a needle with bleach (i.e., "risky" needle use behaviors).<br><br>When OTDGNEDL=4, any data in the general needle use variables GNNDREUS, GNNDLSH1, GNNDCLEN, GNNDLSH2, and GNNDGET were replaced with a code of 89 (LEGITIMATE SKIP Logically assigned). |

(*continued*)

**Exhibit 2 (continued)**

| Issue | Edits Implemented |
|---|---|
| The R reported getting his or her last needle "some other way" and specified a meaningful response for how he or she last got the needle. | The final, edited variable pertaining to how the R got his or her last needle (GNNDGET) was a composite of the response categories that were offered to the R (i.e., bought the needle from a pharmacy, got the needle from a needle exchange, bought the needle on the street, got the needle in a shooting gallery, got the needle some other way). This was done because the CAI logic did not allow Rs to specify an "other" way that they got the needle if they reported getting the needle in one of the first four ways. When Rs reported getting the needle "some other way" and specified a meaningful way they got the needle, that response was assigned to GNNDGET. |
| The R reported getting his or her last needle "some other way" and did not know what that other way was, refused to specify what that other way was, or gave a response that was coded as bad data (e.g., a nonsensical response). | The final, edited variable pertaining to how the R got his or her last needle (GNNDGET) retained a nonspecific code of "some other way." Stated another way, the response of "some other way" was given precedence over the missing value in the "OTHER, Specify" response. The edit was done in this manner to provide a nonmissing value for analysts to use. |
| The R answered "don't know" or "refused" at the outset, when asked how he or she got the last needle that he or she used. | The response of "don't know" or "refused" was retained in the final, edited variable (GNNDGET). |

behaviors that would be indicative of nonmedical needle use, such as needle sharing, use of bleach to clean needles, or reusing of needles; and (c) all of the "other" drugs they reported using with a needle were typically not drugs of abuse. In this situation, the variable OTDGNEDL corresponding to question SD05 was set to a value of 4 (No LOGICALLY ASSIGNED). Any data in the general needle use variables GNNDREUS through GNNDGET were replaced with codes of 89 (LEGITIMATE SKIP Logically assigned) to indicate that respondents logically should have skipped these items because they appeared to be reporting about legitimate use of drugs with a needle.

In addition, recoded needle variables (STNEELDR, STNLRECR, and NEDLRECR) were created from variables pertaining to use of methamphetamine, other stimulants, heroin, or cocaine with a needle. STNEEDLR and STNLRECR were analogous to the variables STNEEDLE and STNDLREC, respectively, that existed in 1999 and 2000. Similarly, NEDLRECR was analogous to the recoded needle recency variable NEDLRECC that existed in 1999 and 2000.

STNEEDLR was created from the lifetime methamphetamine needle use variable MTHNEEDL and the lifetime other stimulant needle use variable OSTNEEDL. If respondents reported use of methamphetamine or other stimulants with a needle, STNEEDLR was coded as 1 (yes). If respondents were users of methamphetamine or other stimulants but reported never injecting stimulants with a needle, STNEEDLR was coded as 2 (no). If respondents had never used stimulants, STNEEDLR was coded as 81 or 91 (depending on the value in the core stimulant recency variable STIMREC). Missing data from MTHNEEDL or OSTNEEDL were carried over to STNEEDLR.

STNLRECR was derived from the needle recency variables MTNDLREC (most recent use of methamphetamine with a needle) and OSTNLREC (most recent use of other stimulants with a needle). If respondents had never used stimulants, STNLRECR was assigned a code of 81 or 91, depending on the value in STIMREC. Similarly, if STNEEDLR was coded as 2 (no), STNLRECR was coded as 93 (used stimulants but never with a needle). If respondents had injected methamphetamine or some other stimulant, the general principle in assigning a value to STNLRECR was to pick the most recent use that

the respondent reported. However, if a respondent reported last using methamphetamine with a needle more than 30 days ago but within the past 12 months but all that was known was that the respondent used other stimulants with a needle at some point in his or her lifetime, it could still be inferred that the respondent had used a needle to inject any stimulant at some point in the past 12 months (potentially including the past 30 days). The nonspecific value for past year use was assigned (i.e., a code of 8) because the respondent could have been a more recent user of other stimulants with a needle. Similarly, if a respondent indicated use of one of these stimulants with a needle in a definite period more than 30 days ago and the respondent did not know or refused to indicate whether he or she had ever used the other type of stimulant, a nonspecific value of lifetime use (i.e., a code of 9) was assigned to STNLRECR because the respondent may have been a more recent user of stimulants with a needle than what he or she had reported.

Similarly, the needle recency variable NEDLRECR was created from the variables HRNDLREC (most recent use of heroin with a needle), CONDLREC (most recent use of cocaine with a needle), and STNLRECR (most recent use of any stimulant with a needle, as noted above). If a respondent never used a needle to inject any of these drugs nonmedically (including situations in which respondents never used cocaine, heroin, or stimulants), NEDLRECR indicated that the respondent had never used cocaine, heroin, or stimulants with a needle. If a respondent reported using one or more of these drugs with a needle, the general principle in assigning a value to NEDLRECR was to identify the most recent use reported by the respondent. In particular, if a respondent reported using one or more of these drugs with a needle in the past 30 days, it could be determined unambiguously that the respondent was a past month needle user.

In other situations, however, if one or more of the cocaine, heroin, or stimulant needle recency variables indicated nonspecific use at some point in the respondent's lifetime, NEDLRECR was assigned a value to indicate nonspecific past year or lifetime use. For example, if a respondent reported last using cocaine with a needle more than 30 days ago but within the past 12 months, yet all that was known was that the respondent used heroin with a needle at some point in his or her lifetime, it could still be inferred that the respondent had used some drug with a needle in the past 12 months. The nonspecific value for past year use was assigned (i.e., a code of 8) because the respondent could have been a more recent user of heroin with a needle. Similarly, if a respondent indicated use of one of these drugs with a needle in a definite period more than 30 days ago and the respondent did not know or refused to indicate whether he or she had ever used one of the other drugs with a needle, a nonspecific value of lifetime use (i.e., a code of 9) was assigned to NEDLRECR because the respondent may have been a more recent needle user than what he or she had reported elsewhere.

## 3.2 Risk/Availability Module

The Risk/Availability module asked about the perceived risk of harm associated with use of alcohol or specific illegal drugs, perceived ease of obtaining different illegal drugs, whether respondents were approached by someone in the past 30 days who was trying to sell an illegal drug, and general risk-taking types of behaviors. The latter included questions on the frequency with which respondents got a "kick out of doing things that are a little dangerous," how often they tried to test themselves "by doing something a little risky," and their frequency of seatbelt use. The 2001 Risk/Availability module also included new "item count" questions that asked respondents to review a list of behaviors pertaining to the past 12 months and indicate the number of things on the list that they had done. Respondents did not have to indicate explicitly which things they had done.

Minimal processing of data was done to variables in this section that existed prior to 2001. Specifically, the raw variables were assigned final, mnemonic variable names (e.g., RSKPKCIG corresponding to question RK01a, which asked about the perceived risk of harm associated with smoking one or more packs of cigarettes per day). Otherwise, no further editing or processing was done to variables that existed in the module prior to 2001.

Editing of the new "item count" variables involved two activities: (a) creation of final variables based on any corrections respondents may have made during the interview, and (b) assignment of legitimate skip codes where relevant. With regard to creation of final variables, questions RK06, RK09, RK12, RK15, and RK18 asked respondents to verify their answer from the previous question. If respondents indicated that their previous answer was not correct, they were routed to a subsequent question that allowed them to correct their report of the number of things they did from that particular list of behaviors. For example, if respondents reported in question RK06 that their answer from question RK05 was not correct, question RK07 gave them the same list of behaviors from RK05 and asked them to reenter the number of things from the list that they had done in the past 12 months. Therefore, if question RK07 was not blank, the edited variable RKLISALL (corresponding to questions RK05 through RK07) reflected the respondent's answer in RK07. Otherwise, RKLISALL took the respondent's answer from RK05. The latter included situations in which respondents did not know or refused to report in question RK06 whether their answer from RK05 was correct. Similar processing was applied to the variables RKLISRA1 (corresponding to questions RK08 through RK10), RKLISRA2 (corresponding to questions RK11 through RK13), RKLISRB2 (corresponding to questions RK14 through RK16), and RKLISRB1 (corresponding to questions RK17 through RK19).

In addition, respondents were randomly assigned to two groups who were administered different sets of items. Respondents in group A were asked questions RK08 through RK13 and were skipped out of questions RK14 through RK19. Conversely, respondents in group B were asked questions RK14 through RK19 and were skipped out of questions RK08 through RK13. Therefore, RKLISRA1 and RKLISRA2 were assigned legitimate skip codes for respondents in group B, and RKLISRB2 and RKLISRB1 were assigned legitimate skip codes for respondents in group A.

### 3.3 Specialty Cigarettes Module

The Speciality Cigarettes module asked about use of two special types of cigarettes: (a) bidis or "beedies" (small brown cigarettes from India consisting of tobacco wrapped in a leaf and tied with a thread); and (b) clove cigarettes that contain tobacco and clove flavoring. For both of these specialty cigarettes, respondents were asked whether they had ever used that particular type of cigarette, whether they had done so in the past 30 days, when they last smoked that type of cigarette (if not in the past 30 days), and the number of days they smoked that type of cigarette in the past 30 days (if applicable).

Respondents were asked about their use of these specialty cigarettes independent of how they answered questions about cigarette use in the core Tobacco module. Consequently, respondents could report in the core Tobacco module that they had never smoked part or all of a cigarette but could report smoking bidis or clove cigarettes in the Specialty Cigarettes module. Similarly, respondents could report in the core Tobacco module that they had smoked cigarettes but not in the past 30 days but then report use of bidis or clove cigarettes in the past 30 days. This issue is relevant to how subsequent tobacco variables were edited in the Substance Dependence and Abuse module and in the Youth Experiences module (see below).

Questions about any use of bidis or clove cigarettes in the past 30 days or the most recent use of these specialty cigarettes if respondents did not use these cigarettes in the past 30 days (questions SPCIG02 and SPCIG03 for bidis; questions SPCIG06 and SPCIG07 for clove cigarettes) were combined into single recency-of-use variables (BIDIREC for bidis and CLOVREC for clove cigarettes). Codes of 1 (Within the past 30 days) through 4 (More than 3 years ago) in these recency variables pertained to situations in which respondents gave complete information regarding their most recent use of these specialty cigarettes. If respondents were lifetime users of a particular type of specialty cigarette, reported that they did not smoke that type of cigarette in the past 30 days, but did not know or refused to report when they last smoked it (e.g., SPCIG02=2 and SPCIG03=94 or 97 for bidis), the corresponding edited recency variable (e.g., BIDIREC) was coded as 19, where 19 = Used more than 30 days ago LOGICALLY ASSIGNED. If respondents reported that they were lifetime users of a particular type of specialty cigarette but they did not know or refused to report whether they used it in the past 30 days (e.g., SPCIG02=94 or 97 for bidis), the corresponding edited recency variable was coded as 9, where 9 = Used at some point in the lifetime LOGICALLY ASSIGNED. These edits for BIDIREC and CLOVREC were similar to edits for the cigarette recency variable CIGREC.

In addition, respondents could report that they smoked bidis or clove cigarettes in the past 30 days but that they used them on "0 days" in that period (i.e., SPCIG04=0 for bidis; SPCIG08=0 for clove cigarettes). In this situation, the value of zero was retained in the relevant edited 30-day frequency variable (BIDI30US or CLOV30US). However, the corresponding recency variable BIDIREC or CLOVREC was assigned a code of 11 to alert analysts to the inconsistency between the recency information and the corresponding 30-day frequency. For BIDIREC, for example, documentation of the code of 11 was as follows: 11 = Used in the past 30 days (BIDI30US=0).

Remaining editing of variables in the Specialty Cigarettes module principally involved assigning codes of 91 or 93 where relevant. For example, if respondents reported never having smoked a bidi (BIDIEVER=2, corresponding to SPCIG01=2), they were skipped out of remaining questions about bidis. The edited variables BIDIREC and BIDI30US were assigned codes of 91, where 91 = NEVER USED BIDIS. Similar edits were applied to the clove cigarette variables CLOVREC and CLOV30US when respondents reported never having smoked a clove cigarette (CLOVEVER=2).

If respondents had used bidis or clove cigarettes in their lifetime but not in the past 30 days, the corresponding 30-day frequency variables BIDI30US or CLOV30US were assigned codes of 93. For example, documentation of this code of 93 for BIDI30US was 93 = DID NOT USE BIDIS IN THE PAST 30 DAYS. Because codes of 19 in the recency variables indicated that respondents had not used a particular specialty cigarette in the past 30 days, situations in which BIDIREC or CLOVREC was coded as 19 resulted in the corresponding 30-day frequency variable being coded as 93. If the recency variable for a specialty cigarette (e.g., BIDIREC) was coded as 9, the corresponding 30-day frequency variable (e.g., BIDI30US) that had been skipped retained a code of 98 (blank) because these respondents did not indicate whether they had used or not used that specialty cigarette in the past 30 days.

In addition, if respondents refused to indicate whether they had ever used a particular type of specialty cigarette, that refusal was propagated onto the remaining specialty cigarettes data that had been skipped. For example, if the lifetime bidi variable BIDIEVER was coded as 97, that code of 97 was assigned to BIDIREC and BIDI30US. If respondents did not know whether they had ever used a particular type of specialty cigarette (e.g., BIDIEVER=94), the remaining variables that were skipped for that type of cigarette retained a code of 98 (blank).

## 3.4 Substance Dependence and Abuse Module

The Substance Dependence and Abuse module asked about symptoms of dependence or abuse in the past 12 months that were associated with the use of alcohol, marijuana, cocaine (including crack), heroin, hallucinogens, inhalants, prescription pain relievers, prescription tranquilizers, prescription stimulants, and prescription sedatives. This section also included items to assess for dependence on cigarettes if respondents had reported use of cigarettes or specialty cigarettes in the past 30 days. Respondents aged 18 or older who had smoked cigarettes in the past 30 days also were asked whether they bought their cigarettes by the pack or carton and the price they paid for the last pack or carton of cigarettes that they bought.

For the items pertaining to cigarette dependence, respondents were not asked the questions if they did not use cigarettes (or specialty cigarettes) in the past 30 days. However, respondents were asked these cigarette dependence items if they did not report cigarette use in the past 30 days in the core Tobacco module but reported use of bidis or clove cigarettes in that period in the Specialty Cigarettes module (see Section 3.3).

For alcohol through sedatives, respondents who never used a given drug in the 12 months prior to the interview (including respondents who had never used a specific drug) were not asked the corresponding questions in the Substance Dependence and Abuse module pertaining to dependence or abuse symptoms for that substance.[6] For alcohol and marijuana, respondents who had used these substances in the past 12 months also were skipped out of the corresponding dependence and abuse questions if they were only infrequent users of these two drugs in the past 12 months.

Consequently, an important aspect of the processing of variables in this module consisted of assigning codes of 91 or 93 (see Section 2.1.1) to variables that had been skipped because the questions did not apply. As noted previously, if recency-of-use variables for the psychotherapeutic drugs were assigned a code of 81, then any data in the Substance Dependence and Abuse module for that psychotherapeutic drug were overwritten with codes of 81. For cocaine, heroin, and stimulants, however, respondents' answers in the Substance Dependence and Abuse module were retained if they were routed into that respective section in the Substance Dependence and Abuse module because they reported past year use in the Special Drugs module (see footnote 6).

Similarly, respondents' answers to the cigarette dependence items were retained if they were routed to these questions because they reported use of specialty cigarettes in the past 30 days. If respondents indicated wherever possible that they had never used cigarettes or specialty cigarettes, the edited cigarette dependence variables were assigned codes of 91, where 91 = NEVER USED CIGARETTES/ SPECIALTY CIGARETTES. If respondents indicated lifetime use to at least one question about cigarettes or specialty cigarettes but the most recent use of all types of cigarettes was clearly more than 30 days prior to the interview, the edited cigarette dependence variables were assigned codes of 93, where 93 = DID NOT USE CIGS/SPECIALTY CIGS IN THE PAST 30 DAYS.

[6]For cocaine, heroin, and stimulants, respondents were not asked the corresponding questions in the Substance Dependence and Abuse module if there was no indication of use in the past 12 months either in the relevant core module (or modules, in the case of cocaine and crack) or in respondents' answers from the Special Drugs module. As noted in a previous footnote, however, respondents who did not indicate past year use of cocaine, heroin, or stimulants in the relevant core sections but indicated past year use in the Special Drugs module *were* routed by the CAI instrument into the relevant drug dependence or abuse questions.

For alcohol and marijuana, the final, edited 12-month frequency variables (ALCYRTOT and MJYRTOT, respectively) also were used in assigning codes of 93 or 83 to the Substance Dependence and Abuse variables pertaining to these substances. For example, if the edited variable ALCYRTOT indicated that respondents had used alcohol in the past 12 months but on fewer than 6 days in that period, the edited Substance Dependence and Abuse variables for alcohol were assigned codes of 93 if they had been skipped. If respondents answered one or more dependence or abuse questions for alcohol but the final value for ALCYRTOT indicated that they had used alcohol on fewer than 6 days in the past 12 months, the previous answers in the dependence and abuse questions were overwritten with codes of 83. Similar edits were done for marijuana if MJYRTOT indicated that respondents used marijuana on fewer than 6 days in the past 12 months.

A second important aspect of processing of the Substance Dependence and Abuse variables for 2001 involved assignment of legitimate skip codes when respondents qualified for being asked dependence or abuse questions about a given substance but they legitimately skipped out of one more questions about that substance. For example, the symptom of tolerance to the effects of alcohol was measured through two related questions, DRALC05 ("During the past 12 months, did you need to drink more alcohol than you used to in order to get the effect you wanted?") and DRALC06 ("During the past 12 months, did you notice that drinking the same amount of alcohol had less effect on you than it used to?"). An affirmative answer to either question would indicate tolerance. Thus, if respondents had already answered DRALC05 as "yes," there was no need to ask DRALC06. If the edited variable corresponding to question DRALC05 (ALCNDMOR) was coded as 1 (i.e., "yes"), the edited variable corresponding to question DRALC06 (ALCLSEFX) was assigned a legitimate skip code.

Aside from assignment of codes of 91, 93, or 99, minimal additional editing was done to the Substance Dependence and Abuse variables. In particular, for the cigarette dependence variables that were added in 2001, no editing was done when respondents entered the same response for all items (e.g., keying a "1" to every item). If respondents entered the same response to all cigarette dependence items, however, that would strongly suggest that they were not paying careful attention to the questions. Nevertheless, these data were retained in order to allow analysts to decide how they would want to handle these cases.

Due to an error in the initial CAI logic for 2001, respondents who were asked questions about attempts to cut down or stop using alcohol, cocaine, heroin, pain relievers, stimulants or sedatives in the past 12 months were skipped out of follow-up questions that asked whether they had tried to cut down or stop using the relevant drug at least one time in the past 12 months. This follow-up question was relevant to the assessment of withdrawal symptoms. This error in the CAI instrument was corrected in March 2001. If respondents had missing data in these variables (e.g., ALCCUT1X for alcohol) because they had been incorrectly skipped out of these questions prior to the corrected logic being fielded, these edited variables were assigned a code of 90, where 90 = NOT ASKED THE QUESTION Logically assigned.

In addition, two respondents in 2001 were skipped out of questions about stimulant dependence or abuse because the logic for determining that these respondents were past year stimulant users did not take into account the new Special Drugs question about most recent use of methamphetamine with a needle. That is, these respondents were lifetime stimulant users, did not report past year stimulant use anywhere in the core Stimulants module, did not report use of stimulants other than methamphetamine with a needle in the past 12 months in the Special Drugs module, but reported last using methamphetamine with a needle at some point in the past 12 months. For these two cases, the skipped

stimulant dependence and abuse variables in the Substance Dependence and Abuse module were assigned codes of 90. In comparison, however, more than 1,300 respondents were routed into the questions about stimulant dependence or abuse.

### 3.5 Special Topics Module

The Special Topics module asked about arrests in the respondents' lifetime and in the past 12 months, including arrests for specific offenses in the past 12 months (not counting minor traffic violations). This section also included questions about respondents being on probation or parole in the past 12 months, operating vehicles under the influence of alcohol illegal drugs in the past 12 months, and respondents' knowledge about their States' marijuana laws.

If respondents reported that they had never been arrested in their lifetime and they did not report being on probation or parole in the past 12 months (see below), the edited variables pertaining to arrests in the past 12 months were assigned legitimate skip codes. Other standard edits described in Section 2.3 pertaining to situations where respondents answered "don't know" or "refused" to the lifetime arrest question were applied to the past year arrest variables that had been skipped.

Similarly, if respondents reported being arrested in their lifetime but reported being arrested zero times in the past 12 months, the questions pertaining to arrests for specific offenses in the past 12 months were assigned legitimate skip codes. In 2001, respondents who did not know how many times they were arrested in the past 12 months or who refused to answer this question were asked whether they were arrested for specific offenses in the past 12 months. This was consistent with the logic in 1999 but differed from the logic in 2000, when respondents who answered "don't know" or "refused" to the question about the number of specific arrests in the past 12 months were skipped out of questions about arrests for specific offenses in the past 12 months.

Respondents also were skipped out of questions pertaining to driving under the influence of alcohol or illegal drugs if they reported in the core modules that they never used alcohol, marijuana, cocaine, heroin, hallucinogens, inhalants, or prescription psychotherapeutics for nonmedical reasons. In this situation, all skipped variables pertaining to driving under the influence of alcohol or illegal drugs were assigned a code of 91, to indicate that the respondents were lifetime nonusers of all of these substances. If respondents were skipped out of one or more of the substance use and driving items because their most recent use of a drug was more than 12 months ago, the edited variables were assigned legitimate skip codes.

Variables pertaining to respondents' knowledge about their States' marijuana laws were new in 2001 (MXMJPENL, MXMJSURE, and MEDMJUSE, corresponding to questions SP07, SP08, and SP09, respectively). Minimal editing was done to these variables. If respondents indicated in MXMJPENL that they did not know the maximum legal penalty in their States for possession of an ounce or less of marijuana for personal use, or if they refused to answer this question, the edited variable MXMJSURE (regarding respondents' degree of certainty about their answer to question SP07) was assigned a legitimate skip code. In addition, if interviewers had entered incorrect information in the FIPE4 checkpoint regarding the State where the respondent's sampled dwelling unit was located, the variables MXMJPENL,

MXMJSURE, and MEDMJUSE were assigned bad data codes.[7] This latter edit was done because the State that respondents were asked about in these questions was governed by the State that interviewers entered in FIPE4. Hence, if interviewers entered incorrect State information in FIPE4, the answers that respondents provided in questions SP07 through SP09 were deemed to be questionable. For example, if a respondent lived in California (FIPE4=5) but the interviewer entered that the respondent's sampled dwelling unit was in Colorado (FIPE4=6), the respondent would be asked for information on marijuana laws in Colorado.

Exhibit 3 presents additional edit issues that were specific to the Special Topics module. For example, respondents could report that they had never been arrested in their lifetime but could report that they were on probation, parole, or supervised release in the past 12 months. Because someone could not be on probation or parole without first having been arrested for a crime, these respondents were logically inferred to have been arrested in their lifetime. When this situation occurred, the skipped variables pertaining to arrests in the past 12 months retained a value of blank.

In addition, respondents could report that they were arrested at least once in the past 12 months but also could give negative answers to every question about specific arrests in the past 12 months, including arrests for "some other offense." Because the question about arrests for "some other offense" made this an exhaustive list of possible offenses (not counting minor traffic violations), respondents who reported that they were arrested in the past 12 months logically should have indicated that they were arrested for something. Therefore, when respondents answered every question about specific arrests as "no," a code of 5 was assigned to the "some other offense" variable (BKOTH). This code of 5 had the following meaning:

5 = Offense unknown.

Stated another way, the previous response was retained to indicate that the respondents were arrested in the past 12 months, but it was not possible to determine the specific crime for which they were arrested.

### 3.6 Marijuana Purchases Module

The Marijuana Purchases module was new in 2001 and focused on acquisition of marijuana. Administration of questions in this module was limited to respondents who had previously reported that they used marijuana in the past 12 months. These respondents were asked how they obtained the last marijuana they used, including buying it, trading something for it, getting it for free (or sharing someone else's), or growing it. The module also included questions about the contexts in which respondents engaged in transactions involving marijuana, including where respondents were when they bought, traded for, or got marijuana for free; who respondents got the marijuana from (if they did not grow it themselves); and whether they sold or gave away any of this marijuana (including those respondents who grew their own).

[7] Creation of the edited variable STATELOC from FIPE4 is discussed in detail in the following document: Kroutil, L. A. (2003a, June). *2001 National Household Survey on Drug Abuse: Procedures for editing interviewer-administered data in the 2001 NHSDA computer-assisted interview* (for inclusion in the 2001 methodological resource book; report prepared for Office of Applied Studies, Substance Abuse and Mental Health Services Administration, under Contract No. 283-98-9008, Deliverable No. 28; RTI/07190.395). Research Triangle Park, NC: RTI International.

**Exhibit 3. Edit Issues Pertaining to the Special Topics Module**

| Issue | Edits Implemented |
|---|---|
| The respondent (R) reported never having been arrested or answered the lifetime arrest question as "don't know" or "refused" but reported being on probation or parole in the past 12 months. | The R was logically inferred to have been arrested at least once in his or her lifetime (i.e., BOOKED=3). The rationale for this edit was that someone could not be on probation or parole without first having been arrested for a crime. The skipped variables pertaining to arrests in the past 12 months retained a value of blank. |
| The R reported being arrested in the past 12 months, did not report being arrested for a specific crime in that period, but reported being arrested for this crime as "some other offense." | The R was logically inferred to have been arrested for that crime. No further editing was done to the affirmative answer where the R reported being arrested for "some other offense" (BKOTH). Similarly, no further editing was done to the "OTHER, Specify" variable (BKOTHOFF) that indicated the crime for which the R was arrested (see Section 2.4). |
| The R reported being arrested at least once in the past 12 months but answered all specific past year arrest questions as "no." | The response was retained to indicate that the R had been arrested in the past 12 months. A code of 5 (i.e., Offense unknown LOGICALLY ASSIGNED) was assigned to the "some other offense" variable (BKOTH). |
| The R reported being arrested for every offense in the past 12 months that was asked about in the module. (For youths aged 12 to 17, that included reports of being arrested for possession of tobacco; this question was skipped for adults.) | The edits differed, depending on what Rs specified for their "other" offense:<br>● If a valid "other" offense was not specified, the entire series of past year offense variables was assigned a bad data code.<br>● If the R gave a valid response for some other offense for which he or she was arrested in the past 12 months, the data were retained to indicate that the R was arrested for this other offense. However, the variables pertaining to arrests for all other offenses were set to bad data.<br>● For adults, the variable pertaining to arrests for possession of tobacco (BKPOSTOB) continued to be assigned a legitimate skip code. |
| The R reported being arrested only one time in the past 12 months, did not report being arrested for some other offense (BKOTH=2), but reported being arrested for every other offense in that same period. | Not including BKOTH or its associated "OTHER, Specify" variable (BKOTHOFF), the variables pertaining to arrests for specific offenses in the past 12 months were assigned a bad data code. For adults, the BKPOSTOB variable continued to be assigned a legitimate skip code. |
| The R reported being arrested 80 or more times in the past 12 months. | The variable pertaining to the number of arrests in the past 12 months (NOBOOKYR) was set to bad data. |
| The R had alternating "yes/no" or "no/yes" patterns to all questions about arrests for specific offenses in the past 12 months (e.g., SP03a=1, SP03b=2, SP03c=1, etc.) | All variables pertaining to arrests for specific offenses in the past 12 months were set to bad data. |
| The R was asked questions about driving under the influence of alcohol or illegal drugs solely because the R originally reported past year use of one or more psychotherapeutics (i.e., pain relievers, tranquilizers, stimulants, or sedatives). However, the R was logically inferred to be a lifetime nonuser of these psychotherapeutics because the only reported lifetime use involved over-the-counter (OTC) drugs. | Any data in the substance use and driving variables (DRVALDR, DRVAONLY, and DRVDONLY) were replaced with codes of 81 (i.e., NEVER USED ALCOHOL OR DRUGS Logically assigned). |
| The R was asked questions about driving under the influence of alcohol, but the alcohol recency variable ALCREC had been set to bad data. | The edited variables pertaining to driving under the influence of alcohol and illegal drugs in combination (DRVALDR) and driving under the influence of alcohol (DRVAONLY) were set to bad data. |

*(continued)*

**Exhibit 3 (Continued)**

| Issue | Edits Implemented |
|---|---|
| The R was routed into questions about driving under the influence of alcohol and illegal drugs in combination and about driving under the influence of illegal drugs, but (a) the only drug that the R definitely used in the past 12 months was alcohol (i.e., after all editing had been done to the core recency-of-use variables for alcohol and other drugs), and (b) it could not be determined that the R was not a past year user of all of the other drugs. | The edited variables pertaining to driving under the influence of alcohol and illegal drugs in combination (DRVALDR) and driving under the influence of illegal drugs (DRVDONLY) were set to bad data. |
| The R had not used alcohol in the past 12 months and was routed into the question about driving under the influence of illegal drugs solely because of psychotherapeutic use that turned out to be limited to OTC use. In addition, one or more other drug recency-of-use variables was ambiguous with respect to past year use, so it could not be determined whether the R did or did not use other illegal drugs. | The edited variable (DRVDONLY) was set to bad data. |
| All core drug recency variables that had triggered respondents being asked questions about driving under the influence of drugs in the past 12 months had been set to bad data. | The edited variables pertaining to driving under the influence of alcohol and illegal drugs in combination (DRVALDR) and driving under the influence of illegal drugs (DRVDONLY) were set to bad data. |

If respondents did not report buying the last marijuana they used, they were asked a follow-up question to identify those who had bought any marijuana in the past 12 months. Respondents who reported purchasing the last marijuana they used or who reported purchasing it at any time during the past 12 months were asked more detailed questions about their purchases of marijuana, and they were skipped out of questions pertaining to trading for marijuana, getting it for free, or growing it.

Similarly, respondents who reported that they traded something for the last marijuana they used and who had not bought marijuana at any time during the past 12 months were asked more detailed questions about trading for marijuana. If respondents did not report trading for the last marijuana they used, they were asked a follow-up question to identify those who had traded something for marijuana in the past 12 months. Respondents who had not been routed into questions about buying marijuana and who were asked more detailed questions about trading for marijuana were skipped out of questions pertaining to getting marijuana for free or growing it.

Respondents who were routed into more detailed questions about purchases of marijuana were asked whether they last bought marijuana in "joints" or in loose form, the quantity they purchased the last time they bought marijuana, and the price they paid. Similar questions were asked of respondents who were routed into questions about trading for marijuana, except that these respondents were asked to estimate the worth of the marijuana they obtained through trading.

Edits in this module principally involved assigning appropriate legitimate skip codes based on the logic for determining whether respondents should be administered the module, or the routing logic within the module, if respondents had used marijuana in the past 12 months. If respondents reported in the Marijuana module in the core that they had never used marijuana, the edited variables in the Marijuana Purchases module were assigned codes of 91 (or 991, etc.) to indicate that respondents had skipped out of the module because they were lifetime nonusers of marijuana. Similarly, if respondents' edited marijuana recency MJREC indicated that they last used marijuana more than 12 months ago, the edited variables in the Marijuana Purchases module were assigned codes of 93 (or 993, etc.) to indicate that respondents had

skipped out of the module because they had used marijuana, but not in the past year. If respondents had been skipped out of the Marijuana Purchases module but their edited marijuana recency had a value of 9 (Used at some point in the lifetime LOGICALLY ASSIGNED), the skipped Marijuana Purchases variables retained codes of blank because at least some of these respondents potentially used marijuana in the past 12 months and would have been eligible to be asked questions in the Marijuana Purchases module.

If respondents previously reported that they had used marijuana in the past 12 months, a key aspect of the editing of variables in the Marijuana Purchases module involved assignment of legitimate skip codes (99, 999, etc.) according to how respondents were routed through the module. As discussed previously, for example, respondents who gave some report of having bought marijuana were skipped out of questions about trading for marijuana, growing it, or getting it for free. Similarly, respondents who gave some indication of having traded for marijuana (without having indicated buying it) were skipped out of questions related to growing it or getting it for free. If respondents reported buying or trading for marijuana and bought or traded for it in joints, they were skipped out of questions pertaining to buying or trading for marijuana in loose form, and vice versa. If respondents bought or traded for marijuana in loose form, respondents also were routed into or skipped out of questions about the quantities they obtained based on whether they reported purchasing or trading for grams, ounces, or pounds of marijuana. In addition, respondents who reported that they grew the last marijuana they used (without having indicated that they bought or traded for marijuana) were skipped out of questions related to getting marijuana for free, and respondents who reported that they got their last marijuana for free were skipped out of questions related to growing it.

Remaining processing of variables in the Marijuana Purchases module involved creating summary variables for the price that respondents paid for the last marijuana they bought, or the price they paid for the marijuana they got through a trade. Respondents were first asked to report broad categories of prices. For some of these broader categories (e.g., if respondents reported paying $21.00 to $50.99), respondents were asked to report more detailed price categories (e.g., $21.00 to $30.99; $31.00 to $40.99; $41.00 to $50.99) in order to define more narrowly how much they paid for the marijuana (or how much they estimated the marijuana to be worth). The routing to these more detailed questions was contingent on the broader price category that respondents reported, such that responses to the more detailed price questions were mutually exclusive. Therefore, "composite" summary cost variables were created based on this routing logic.

For example, if respondents reported buying marijuana in loose form the last time, the broad price category variable was called MMLSPCTB (corresponding to question MJE20), where "LS" stood for marijuana in loose form, and "PCTB" stood for "broad price category." Similarly, the detailed price category variable for buying marijuana in loose form was called MMLSPCAT and was derived from responses in questions MJE20 through MJE25. If, for example, a respondent reported in question MJE20 that he or she paid "$21.00 to $50.99" for the last marijuana purchase (level 4 in question MJE20), MMLSPCAT was coded as 41 if the respondent reported paying $21.00 to $30.99 (level 1 in question MJE21); 42 if the respondent reported paying $31.00 to $40.99 (level 2 in question MJE21); and 43 if the respondent reported paying $41.00 to $50.99 (level 3 in question MJE21).

If respondents reported a broad price category for the marijuana they bought or traded for but they did not know (or refused to report) more detailed price, the response from the "broad" price category

variable (e.g., MMLSPCTB) was used to create a value for the corresponding detailed price category variable (e.g., MMLSPCAT). For example if respondents reported paying $21.00 to $50.99 in question MJE20 but they did not recall more detailed information, the variable MMLSPCAT was assigned a code of 40. This code indicated that it could at least be determined that the respondent paid $21.00 to $50.99, but that more detailed information was not available.

## 3.7 Substance Treatment Module

The Substance Treatment module asked about receipt of treatment services for the use of alcohol or other drugs, not counting cigarettes. Questions about the receipt of treatment services included questions about receipt of treatment in respondents' lifetimes and in the past 12 months, specific locations where respondents received treatment in the past 12 months, emergency room visits in the past 12 months related to their use of specific drugs, whether they were still in treatment, the length of time since they were last in treatment (if they were not currently in treatment), specific questions about their last (or current) treatment episode, whether they were enrolled in treatment on October 1, 2000, and whether the only treatment they received in the past 12 months was detoxification.

A new question (TX07) was added to the Substance Treatment module in 2000 that asked respondents whether they were still in treatment. With the addition of this question, the skip logic for subsequent questions about the last treatment episode changed relative to the logic in 1999. In 1999, these questions about the last treatment episode were asked of all respondents who had ever received treatment. Beginning in 2000 (and continuing in 2001), these questions were asked only if respondents reported that they received treatment in the past 12 months (question TX02 answered as "yes"). If respondents received treatment in the past 12 months and reported in question TX07 that they were currently in treatment, subsequent questions asked about the main location where they were receiving treatment, specific drugs for which they were receiving treatment, the primary drug for which they were receiving treatment (if treatment for more than one drug was reported), the length of time that they had been in treatment thus far, and anticipated payment sources for their current treatment. If respondents received treatment in the past 12 months but did not report currently being in treatment, these subsequent questions pertained to their last treatment episode, such as the duration of their last treatment and the payment sources for their last treatment. Respondents who did not report that they were currently in treatment also were asked about the outcome of their last treatment.

The Substance Treatment module also included questions about respondents' perceived need for treatment in the past 12 months if they never received treatment or did not report that they received treatment in the past 12 months. Questions about respondents' perceived need for treatment included questions about specific drugs for which respondents thought they needed treatment and whether they made specific efforts to receive treatment in the past 12 months. In addition, respondents who received treatment in the past 12 months but did not report that they were currently in treatment were asked whether they felt the need for *additional* treatment in the past 12 months, the specific drugs for which they needed additional treatment, and whether they made specific efforts to receive additional treatment.

As noted previously, the Substance Treatment module was relevant only for respondents who reported some lifetime use of alcohol or other drugs, not counting cigarettes. Therefore, all of the edited treatment variables were assigned codes of 91 (i.e., never used alcohol or drugs) if respondents were skipped out of the entire Substance Treatment module because they never used alcohol, illicit drugs, or

prescription type psychotherapeutics for nonmedical reasons (i.e., pain relievers, tranquilizers, stimulants, or sedatives).

In situations where respondents' only lifetime use of drugs involved use of OTC medications that were reported in one or more of the Psychotherapeutics modules, codes of 81 were assigned to all of the edited Substance Treatment variables (i.e., NEVER USED ALCOHOL OR DRUGS Logically assigned). This was done to signify that these respondents were logically inferred to be lifetime nonusers of alcohol through sedatives. This code of 81 also set these respondents apart from those whose original answers indicated that they had never used any of these drugs.

### 3.7.1 Receipt of Substance Treatment Services

Few changes occurred in the Substance Treatment module in 2001, such as the addition of an option for respondents to report their length of time in treatment in terms of a number of years (see below). Therefore, updates to edits of variables in 2001 that pertained to the receipt of substance treatment services represented refinements to the editing procedures, rather than major modifications.

In addition to the situations described above in which respondents never used alcohol or other drugs (or were inferred to be nonusers), an important aspect of the processing of the Substance Treatment variables involved assignment of relevant legitimate skip codes when it could be determined unambiguously from respondents' answers that subsequent questions did not apply. In particular, respondents who were lifetime users of alcohol or at least one other drug were asked if they had ever received treatment for their alcohol or other drug use, not counting cigarettes. If respondents reported that they never received treatment (i.e., TXEVER=2), the CAI program skipped them out of all remaining questions pertaining to the receipt of treatment services. Thus, if respondents clearly indicated that they never received treatment, the skipped treatment service variables were assigned legitimate skip codes. As described in Section 2.3, when the treatment service questions were skipped because respondents refused to indicate whether they ever received treatment, the edited variables were assigned a refusal code; if treatment service questions were skipped because respondents did not know whether they ever received treatment, the edited variables retained a value of blank.

Similarly, respondents were not asked subsequent questions about receipt of treatment services in the past 12 months if they did not report having ever received treatment in that period (i.e., TXYREVER=2). Thus, if respondents reported that they did not receive treatment in the past 12 months and there were no other responses in the Substance Treatment module to suggest that they had (see below), legitimate skip codes were assigned to the variables pertaining to receipt of treatment in specific locations in the past 12 months. The procedures for editing 12-month treatment variables that had been skipped when respondents refused to indicate whether they had received treatment in the past 12 months or did not know whether they had received treatment in this period were the same as those described above.

If respondents reported that they received treatment in the past 12 months, it was possible for them to be asked subsequent questions about treatment in an emergency room in the past 12 months for their use of marijuana, cocaine, heroin, LSD, PCP, or methamphetamine. Respondents were not asked these questions if they previously reported that their treatment in the past 12 months was only for their use of alcohol. Thus, "legitimate skip" codes were assigned to the edited variables pertaining to

emergency room use (TXYRVSER and TXYRNMER), provided there were no other answers in the Substance Treatment module to suggest that respondents should have been asked these questions (see below). Similarly, legitimate skip codes were assigned to the edited variable pertaining to the number of emergency room episodes for treatment of these six drugs (TXYRNMER) if respondents reported that they never received treatment in an emergency room related to their use of these drugs.

In addition, respondents who reported receiving treatment in the past year were not asked certain questions about receipt of treatment related to their use of specific drugs if they were lifetime nonusers of these drugs. For example, respondents who never used heroin were not asked whether they last received (or were currently receiving) treatment for their use of heroin. Similarly, respondents who reported receiving treatment in the past 12 months but who never used marijuana, cocaine, heroin, LSD, PCP, or methamphetamine were not asked the questions about use of hospital emergency room services for the use of these drugs. Rather than assign the usual type of legitimate skip code (i.e., 99 or 89), however, a special code of 6 was assigned in these situations, where the code had the following meaning:

6 = Never used the relevant drug.

This coding was done because respondents could be routed into or skipped out of a number of different combinations of questions depending on their reported drug use history. For example, a respondent who reported that he or she had received treatment in the past 12 months and was a lifetime user of alcohol, marijuana, cocaine, hallucinogens, prescription pain relievers, and prescription stimulants would selectively be asked the questions about treatment for these drugs during his or her last treatment or current episode and would not be asked the questions pertaining to treatment for heroin, inhalants, prescription tranquilizers, and prescription sedatives.

When respondents were skipped out of a question related to treatment for a given drug because they refused to indicate whether they had ever used that drug, the refusal was propagated onto the edited variable pertaining to treatment for that drug. For example, if a respondent reported receiving treatment in his or her lifetime but refused to indicate whether he or she had ever used heroin, the question about treatment for heroin during the last treatment episode was skipped. The edited variable pertaining to treatment for heroin (TXLTYHER) was therefore assigned a refusal code.

As noted above, respondents who did not report that they received treatment in the past 12 months were not asked questions about their last treatment episode. Therefore, if the final edited variable pertaining to receipt of treatment in the past 12 months indicated that respondents had not received treatment during this period (i.e., TXYREVER=2), the variables pertaining to the last treatment episode were assigned legitimate skip codes.

Exhibit 4 presents additional edit issues that were specific to the variables for the receipt of treatment services. For example, the answers to the questions on receipt of treatment in the past 12 months and the last time that respondents received treatment could be inconsistent. Specifically, respondents could report that they received treatment in the past 12 months (TX02=1) but then subsequently report that the last time they received treatment was more than 12 months ago (TX24=3). For these respondents, the recency of treatment was inferred to be at some point within the past 12 months (TXLASREC=8). Respondents also could provide an answer other than "yes" when asked in question TX02 whether they had received treatment in the past 12 months and then indicate that they last

**Exhibit 4. Edit Issues Pertaining to the Receipt of Substance Treatment Variables**

| Issue | Edits Implemented |
|---|---|
| The only indication(s) of lifetime drug use that routed the respondent (R) into question TX01 about lifetime substance treatment had been set to bad data because only over-the-counter (OTC) drug use had been reported in the core. | Nonblank values in the edited variables pertaining to receipt of substance treatment were replaced with bad data codes. |
| Responses to the questions on the receipt of treatment in the past 12 months and the last time that the R received treatment were inconsistent (e.g., if the R reported that he or she did not receive treatment in the past 12 months but subsequently reported last receiving treatment during that period). | The edits favored responses that indicated more recent receipt of treatment:<br>● If an R responded affirmatively that he or she had received treatment in the past 12 months reported last receiving treatment "more than 12 months ago," the edits logically inferred that the R last received treatment at some point in the past 12 months (i.e., TXLASREC=8).<br>● If an R reported that he or she did not receive treatment in the past 12 months but reported last receiving treatment in the past 12 months, the edits logically inferred that the R had received treatment in that period (i.e., TXYREVER=3). |
| The question on the receipt of treatment in the past 12 months had missing data (e.g., a response of "don't know" or "refused), but the question on the last time that the R received treatment did not. Alternatively, the question on the last time that the R received treatment had missing data, but the question on receipt of treatment in the past 12 months did not. | Where possible, data were used to replace the missing value with a nonmissing value. Suppose, for example, that the R did not know or refused to report whether he or she had received treatment in the past 12 months.<br>● If the R reported last receiving treatment in this period, the ambiguous response was replaced with a value to indicate that the R had received treatment in this period (i.e., TXYREVER=3).<br>● If the R reported last receiving treatment more than 12 months ago, it was logically inferred that the question about receipt of any treatment in the past 12 months should have been answered as "no" (i.e., TXYREVER=4).<br>Similarly, if an R answered the question about receipt of any treatment in the past 12 months as "yes" or "no," that information was used to infer in the edited variable (TXLASREC) whether the R last received treatment at some point in the past 12 months or more than 12 months ago. |
| The R reported currently being in treatment in question TX07, so the question about the most recent time that the R had been in treatment was skipped. | The edited variable corresponding to question TX07 (TXRCVNOW) continued to be coded as 1 (i.e., "yes"). Instead of a legitimate skip code being assigned, the edited treatment recency variable (TXLASREC) was assigned a code of 7, where 7 = Still in treatment LOGICALLY ASSIGNED. A code of 21 (still in treatment) also was assigned to the treatment outcome variable TXLTYOUT. |
| The R reported that he or she was not currently in treatment (TXRCVNOW=2 or 4), but the R reported still being in treatment when asked about the outcome of the last treatment episode. | The treatment outcome variable (TXLTYOUT) was assigned a bad data code. |
| The R specified receiving treatment for an over-the-counter (OTC) psychotherapeutic medication (e.g., aspirin). | This information on OTC drugs was not used to infer treatment for any of the psychotherapeutic drugs because the questions about receipt of treatment for psychotherapeutic drugs referred specifically to treatment for prescription-type medications (i.e., and not OTCs). |
| The R did not report receiving treatment for a particular drug during his or her last (or current) treatment episode, but treatment for this drug was specified as treatment for "some other drug." In the case of the psychotherapeutics, the "other" drug specified was not an OTC drug. | The R was inferred to have received (or be receiving) treatment for the use of that drug. For example, Rs who did not report receiving treatment for prescription stimulants but reported receiving treatment for street stimulants were considered to qualify as having received treatment for prescription-type stimulants (i.e., those that were not available as OTCs, which would include street drugs). |

*(continued)*

**Exhibit 4 (Continued)**

| Issue | Edits Implemented |
|---|---|
| The R did not report receiving treatment for a particular drug during his or her last (or current) treatment episode but indicated that this drug was the primary drug for which he or she last received treatment (or was currently receiving treatment). | The R was inferred to have received (or be receiving) treatment for the use of that drug. |
| The R reported lifetime receipt of treatment but did not report being treated in the last (or current) treatment episode for any of the drugs that he or she ever used. | The following edits were implemented:<br>● If the R reported receiving treatment only for alcohol in the past 12 months, a special logically inferred "yes" code was assigned to the variable for alcohol treatment during the last treatment episode (TXLTYALC).<br>● If the R reported treatment only for drugs other than alcohol in the past 12 months, a special code was assigned to the "some other drug" variable (TXLTYSOD) to indicate that the drug for which the R received treatment was unknown.<br>● Otherwise, a special code was assigned to TXLTYSOD, the "some other drug" variable, to indicate that treatment for alcohol or other drugs was unknown. |
| The R reported treatment for "some other drug" but the only substances specified were tobacco products (i.e., cigarettes, chewing tobacco, snuff, cigars, pipe tobacco). | The variables specifying treatment for tobacco products were assigned bad data codes. In addition, other variables pertaining to the last (or current) treatment episode were assigned bad data codes if the items had been answered. The following variables were affected: TXLTYMN (i.e., main drug for which the R was last treated, or was currently being treated); payment sources for the last (or current) treatment episode (i.e., variables beginning with TXPY); and TXLTYDUR (i.e., length of the last or current treatment). The rationale for these edits was that anything pertaining to the last treatment (e.g., payment sources for the last or current treatment) would logically be assumed to pertain to treatment only for tobacco. |
| The length of time that the R reported currently being in treatment or being in treatment the last time translated to a number of years greater than the R's age. | The edited variable TXLTYDUR was assigned a bad data code. |
| The R reported receiving treatment in the past 12 months and reported receiving treatment in the past 12 months for alcohol only or drugs only. However, this response was inconsistent with the responses to questions on the drugs for which the R was treated (or was being treated) during the last (or current) treatment episode. For example, the R reported being treated in the past 12 months only for alcohol but reported last being treated for use of one or more other drugs. | Logically, the last or current treatment episode would fall within the 12-month period prior to the interview. Therefore, the variable pertaining to receipt of treatment for alcohol, other drugs, or both in the past 12 months (TXYRADG) was edited as follows:<br>● If the R originally indicated treatment for alcohol only (i.e., a code of 1 in question TX03), with treatment for other drugs also having been indicated during the last episode, a special code of 11 was assigned to TXYRADG.<br>● If the R originally indicated treatment for drugs only (i.e., a code of 2 in question TX03), with treatment for alcohol also having been indicated during the last episode, a special code of 12 was assigned to TXYRADG.<br>The edits were done in this manner because the subsequent fill pattern for specific locations where the R received treatment in the past 12 months was based on the R's original answer for receipt of treatment only for alcohol, only for other drugs, or both. |

(*continued*)

**Exhibit 4 (Continued)**

| Issue | Edits Implemented |
|---|---|
| The R reported receiving treatment in the past 12 months but did not know or refused to report whether he or she received treatment only for alcohol, only for other drugs, or for both. However, data were provided on the drugs for which the R was treated during his or her last (or current) treatment episode. | Data on the drugs for which the R was last treated (or was currently being treated) were used to indicate the *minimum* for which the R could have been treated in the past 12 months:<br>● If the R indicated last (or currently) being treated for alcohol but did not indicate treatment for other drugs during the last (or current) treatment episode, it was possible to infer in TXYRADG that the R was at least treated for alcohol in the past 12 months in TXYRADG (but the R also may have been treated for other drugs at some point during that period).<br>● If the R indicated last (or currently) being treated for one or more drugs other than alcohol but did not indicate treatment for alcohol, it was possible to infer in TXYRADG that the R was at least treated for drugs other than alcohol in the past 12 months.<br>● If the R reported last (or currently) being treated both for alcohol and for other drugs, it was possible to infer in TXYRADG that the R was treated for both alcohol and other drugs in the past 12 months. |
| The R reported receiving treatment in the past 12 months, did not report receiving treatment in a particular location in the past 12 months, but this location was specified as treatment in "some other place" in the past 12 months. | The R was logically inferred to have received treatment in that location in the past 12 months. A code of 3 (Yes LOGICALLY ASSIGNED) was given to the edited treatment location variable in this situation. |
| The R reported receiving treatment in the past 12 months (or was inferred to have received treatment in the past 12 months) and did not report receiving treatment in a particular location that he or she subsequently reported was the main place that he or she received treatment the last time (or the main place where he or she was currently receiving treatment). | The R was logically inferred to have received treatment in that location in the past 12 months. A special logically assigned "yes" code of 5 was assigned to indicate that the affirmative response came from the data on the main location where the R last received (or was currently receiving) treatment. |
| The R reported receiving treatment in the past 12 months but answered "no" to every item about particular locations for treatment in that period, including "some other place." | The edited variable pertaining to "some other place"(TXYRSOP) was assigned a special code to indicate that the treatment location was unknown. |
| The R reported receiving treatment in the past 12 months and did not initially indicate receiving treatment in a hospital emergency room in that period. However, the R subsequently reported receiving treatment in the past 12 months in an emergency room for use of marijuana, cocaine, heroin, LSD, PCP, or methamphetamine. | The variable that did not indicate treatment in an emergency room (TXYRTXER) was edited to infer that the R had received treatment in that location in the past 12 months. |
| The R reported receiving treatment in the past 12 months in every specific location that was asked about (i.e., except for treatment in "some other place"). | No editing was done if the R reported being or having been in treatment for 15 days or more. If the R reported being or having been in treatment for fewer than 15 days, however, responses of "yes" in the entire list of edited past year treatment location variables were replaced with bad data only codes. If treatment in "some other place" also was reported, the edited variable TXYRSOP was assigned a bad data code. In the variable TXYROTSP (i.e., the other treatment location that was specified), any responses were replaced with bad data codes. If the R also reported that he or she was still in treatment (TX07=1), the edited variable TXRCVNOW also was assigned a bad data code. |

(*continued*)

**Exhibit 4 (Continued)**

| Issue | Edits Implemented |
|---|---|
| Rs could report still being in treatment in question TX07 but may report that they received treatment only in jail in the past 12 months. | When Rs reported receiving treatment only in jail in the past 12 months, they were logically inferred not to currently be in treatment (TXRCVNOW=4). |
| The R did not report a particular payment source for his or her last episode of treatment but specified this payment source as "some other source." | The R was inferred to have used that particular payment source for treatment. |
| The R answered all items about payment sources for treatment as "no," including the item indicating that the last treatment was free. | A special code was assigned to the edited "some other source" variable (TXPYSOS) to indicate that the payment source was unknown. |
| The R reported that every specific payment source that was asked about paid for his or her last episode of treatment (i.e., except for "some other source" and free payment, the latter of which would have been skipped). | If "some other source" of payment also was reported, the edited variable TXPYSOS was assigned a bad data code. In the variable TXPYSP (i.e., the other payment source that was specified), any responses were replaced with bad data codes. |
| The R reported *all* of the following:<br>• receipt of treatment in every specific location in the past 12 months (i.e., except for treatment in "some other place"); and<br>• payment of the last treatment by every specific payment source (i.e., except for "some other source" and free treatment). | When this specific pattern occurred, data from additional variables also were assumed to be questionable. Responses entered for the following variables were replaced with bad data codes: TXYRADG (i.e., treatment for alcohol, drugs, or both in the past 12 months); TXYRVSER (treatment in an emergency room for marijuana, cocaine, heroin, LSD, PCP, or methamphetamine in the past 12 months); TXYRNMER (number of times the R visited an emergency room for treatment of the above drugs); TXLTYMN (the main place the R received treatment the last time); drugs that the R was asked about for the last treatment episode; and TXLTYDUR (length of time in treatment currently or the last time). |
| The R indicated that "some other source" paid for the last treatment but then specified that this treatment was free. | If no other payment source was indicated, then it was logically inferred that the R's last treatment was free (i.e., TXPYFRE=3). Otherwise, if one or more payment sources had been indicated previously (e.g., private health insurance, the R's own funds), then it was inferred that "some other source" had not paid for the last treatment. In this situation, the response of free treatment that had been specified also was wiped out in the edited "OTHER, Specify" variable (TXPYSP). |
| The R reported in question TX44 that the only treatment he or she received in the past 12 months was for detoxification, but the R also reported attending self-help groups in the past 12 months. Self-help groups are typically not places where people go to receive detoxification. | The response was accepted that the R received treatment in a self-help group in the past 12 months, and the R was logically inferred to have received treatment other than detoxification in that period. The edited variable corresponding to question TX44 (TXYRDTXO) was assigned a code of 4 (No LOGICALLY ASSIGNED). |

received treatment in the past 30 days or more than 30 days ago but within the past 12 months (TX24=1 or 2). In these situations, the respondents were logically inferred to have received treatment in the past 12 months. Similarly, respondents could answer "don't know" or "refused" when asked whether they had received treatment in the past 12 months and then report that they last received treatment more than 12 months ago. In this situation, a negative response was logically inferred for the variable pertaining to receipt of treatment services in the past 12 months (TXYREVER=4).

In addition, composite variables combining data from more than one individual item were created for the following:

- the main place where respondents received (or were receiving) treatment during their last (or current) treatment episode (TXLTYMN),
- the outcome of the last treatment episode, for respondents who were not currently in treatment (TXLTYOUT), and
- the length of time that respondents had been in treatment or had currently been in treatment thus far (TXLTYDUR).

For the first two variables listed above, respondents could select a response category for a list, including selection of an "other" category (e.g., treatment in some other place). Only those respondents who chose the other category were routed into a second item where they were asked to specify the other location or the other outcome of their treatment. Consequently, the final variables for the main place where respondents received (or were receiving) treatment during their last (or current) treatment episode and the outcome for that last episode included data both from the existing response categories that respondents were allowed to choose and valid "other" responses that they specified. If respondents chose the other category but specified something that was coded with a missing value (i.e., "bad data," "don't know," "refused," or "blank"), a final code of "other" was retained for these two variables.

The variable pertaining to the length of time that respondents had been in treatment (TXLTYDUR) was derived from a question that asked respondents to indicate whether they wanted to give their answer in terms of days, months, or years, and from questions that asked for the number of days, months, or years that they were in treatment. TXLTYDUR was expressed as a number of days that respondents were in treatment. If respondents answered in terms of a number of months, their reported number of months was multiplied by 30. If respondents answered in terms of a number of years that they had been in treatment, their reported number of years was multiplied by 365.

If respondents answered in terms of a number of months in treatment, the treatment duration data also were compared for consistency with the respondent's age. Specifically, the number of months in treatment was divided by 12 to yield an estimated number of years in treatment. If the reported number of years in treatment exceeded the respondent's current age, then TXLTYDUR was assigned a bad data code. If the difference between the respondent's current age and the number of years in treatment was 10 or fewer years, this data pattern was flagged. Such respondents would have been reporting that they had *not* been in treatment for 10 or fewer years. However, TXLTYDUR was not set to bad data for this latter situation.

### 3.7.2 Perceived Need for Substance Treatment

The content of this set of questions did not change in 2001. Therefore, updates to edits of variables in 2001 that pertained to the perceived need for substance treatment services represented refinements to the editing procedures rather than major modifications.

As discussed above, however, the Substance Treatment module underwent important changes relative to the 1999 instrument, but the content of this section did not change for 2001 relative to 2000. New questions were added in 2000 for the perceived need for additional treatment if respondents reported that they received treatment in the past 12 months and reported that they were still in treatment. Along with these changes, the skip logic also changed for asking questions about respondents' perceived need for treatment (or for additional treatment). Consequently, for variables that existed in 1999, the distribution of

responses in 2000 changed compared with the distributions in 1999. Therefore, variables that existed in 1999 were renamed for 2000, even though the basic content of these questions did not change relative to 1999. Because the section did not change in 2001, the corresponding variables for 2001 retained the names that had been developed in 2000.

As was the case with the variables pertaining to receipt of treatment services, an important aspect of the processing of the variables pertaining to perceived need for treatment involved assignment of relevant legitimate skip codes. In particular, the variables on perceived need for treatment were compared with data on receipt of treatment services in the past 12 months. For example, if respondents had received treatment services in the past 12 months, the questions about perceived need for treatment in that period did not apply. Thus, legitimate skip codes were assigned to the variables pertaining to the perceived need for any alcohol or other drug treatment when respondents had received treatment in the past 12 months. Similarly, if respondents received treatment in the past 12 months and they reported that they were still in treatment (TXRCVNOW=1), the questions about perceived need for additional services did not apply, and legitimate skip codes were assigned to the corresponding edited variables.

Respondents who had not indicated that they received treatment in the past 12 months and who were lifetime users of alcohol or some other drug also were skipped out of questions regarding their perceived need for additional treatment. Again, the edited variables corresponding to perceived need for additional services were assigned legitimate skip codes. Those respondents who had not indicated that they received treatment in the past 12 months were asked the general question about whether they perceived themselves as needing treatment for their use of alcohol or other drugs (edited variable NDTXNEDR). If they did not see themselves as needing treatment, they were skipped out of questions pertaining to perceived need for treatment for specific drugs in the past 12 months. Again, legitimate skip codes were assigned to the edited variables that had been skipped.

Similarly, respondents were globally skipped out of questions TX11 through TX22 (regarding their perceived need for any treatment for alcohol or specific other drugs) if they reported in question TX02 that they received treatment in the past 12 months. Therefore, the edited variables corresponding to questions TX11 through TX22 (NDTXALCR through NDTXEFTR) were assigned legitimate skip codes.

Legitimate skip codes also were assigned in situations in which respondents were lifetime nonusers of a particular drug. For example, if respondents indicated that they needed treatment for their use of alcohol or drugs, they were asked about their perceived need for treatment only for those specific drugs that they had ever used; legitimate skip codes were assigned to the skipped drug-specific variables that respondents had never used. Thus, for example, if a respondent had never used heroin but reported needing treatment in the past 12 months for alcohol or drugs (TX08=1), a legitimate skip code was assigned to the edited variable pertaining to the perceived need for treatment for heroin (NDTXHERR).

Procedures consistent with those described in Section 2.3 also were implemented when questions about the perceived need for treatment were potentially applicable, but respondents refused to report whether they had ever used a particular drug. For example, if a respondent had not received treatment in the past 12 months, reported needing treatment in the past 12 months for alcohol or other drugs, but refused to report whether he or she had ever used heroin, the item about perceived need for treatment for heroin was skipped. Because the respondent refused to report about lifetime use or nonuse of heroin, the edited variable NDTXHERR was assigned a refusal code.

Exhibit 5 presents additional edit issues that were specific to the variables pertaining to the perceived need for treatment services. As noted above, for example, respondents were skipped out of questions TX11 through TX22 if they reported that they received treatment in the past 12 months. If respondents had not originally reported receiving treatment in the past 12 months but were logically inferred to have done so (see Exhibit 4), these respondents would have been routed to questions TX11 through TX22. Rather than wipe out respondents' answers, however, special codes were assigned to indicate that respondents were routed into questions about their perceived need for treatment for use of specific drugs when they were logically inferred to have received treatment in the past 12 months. This procedure would allow analysts to decide whether to use or disregard these data in their analyses.

### 3.8 Health Care Module

The Health Care module included questions for female respondents aged 12 to 44 regarding whether they were currently pregnant, and if so, the number of months that they had been pregnant. This section also included questions for all respondents regarding utilization of hospital emergency room services and overnight inpatient hospitalizations in the past 12 months.

An important aspect of processing the variables in this section involved assignment of legitimate skip codes, where relevant. For example, males and women over the age of 44 were assigned legitimate skip codes to the pregnancy variables. Similarly, if females aged 12 to 44 reported that they were not currently pregnant (PREGNANT=0), legitimate skip codes were assigned to the variable pertaining to the number of months that they were pregnant (PREGMOS).

In the pregnancy variables, if women reported currently being pregnant, the allowable range for the number of months that they were pregnant ranged from 1 to 9 months. Thus, women who reported that they were currently pregnant were not allowed to report that they had been pregnant for "0" months.

In the health care questions, respondents who did not report that they were hospitalized overnight in the past 12 months (edited variable INHOSPYR) were not asked for the number of times they were hospitalized in that period (edited variable NMNGTHSP). If respondents reported that they were not hospitalized overnight in the past 12 months (INHOSPYR=2), the variable NMNGTHSP was assigned a legitimate skip code. If respondents refused to report whether they were hospitalized overnight in the past 12 months (INHOSPYR=97), that refusal was propagated onto NMNGTHSP.

The allowable range for the question about the number of nights that respondents were inpatients in a hospital in the past 12 months included 365. No editing was done to the variable NMNGTHSP when respondents reported that they had spent all 365 nights in a hospital in the past 12 months.

New questions were added to the Health Care module in 2001 for respondents aged 18 or older. These new questions pertained to limitation of respondents' usual activities. Minimal processing of data was done to create the variables associated with these new questions. The primary data processing involved assignment of legitimate skip codes based on the CAI routing logic. That included (a) assignment of legitimate skip codes to these new variables for respondents who were aged 12 to 17, and (b) assignment of legitimate skip codes to adult respondents' data based on routing logic within these new questions.

## Exhibit 5. Edit Issues Pertaining to the Perceived Need for Treatment Variables

| Issue | Edits Implemented |
|---|---|
| The only indication(s) of lifetime drug use that routed the respondent (R) into the substance treatment questions had been set to bad data because only over-the-counter (OTC) drug use had been reported in the core. | Nonblank values in the edited variables pertaining to perceived need for substance treatment were replaced with bad data codes. |
| The R specified the need for treatment for an OTC psychotherapeutic medication (e.g., aspirin). | This information on OTC drugs was not used to infer need for treatment for any of the psychotherapeutic drugs because the questions about perceived need for treatment for psychotherapeutic drugs referred specifically to prescription-type medications (i.e., and not OTCs). |
| The R did not report needing treatment for a particular drug in the past 12 months, but need for treatment for this drug was specified as a treatment need for "some other drug." In the case of the psychotherapeutics, the other drug specified was not an OTC drug. | The R was inferred to perceive the need for treatment for the use of that drug. For example, Rs who did not report needing treatment for prescription stimulants but reported needing treatment for street stimulants were considered to qualify as perceiving the need for treatment for prescription-type stimulants (i.e., those that were not available over-the-counter, which would include street drugs). The edited variable NDTXSTMR was assigned a code of 3 (Yes LOGICALLY ASSIGNED). This code of 3 could be edited further, as discussed below. |
| The R reported needing treatment in the past 12 months for the use of alcohol or other drugs, but questions about the perceived need for treatment for all specific drugs that the R had ever used were answered as "no." | A special code was assigned to the "some other drug" variable (NDTXSOD) to indicate that the specific drug for which the R thought that he or she needed treatment was unknown. |
| The new question TX10, pertaining to the perceived need for additional treatment, is an "enter all that apply" type of question. That is, Rs could report needing additional treatment for more than one drug shown in the list in TX10. However, Rs could report needing additional treatment for drugs that they had reported never using in the corresponding core module (e.g., reported never using heroin but reported needing additional treatment for heroin). In contrast, Rs would not get asked questions TX11 through TX21 (regarding perceived need for treatment for specific drugs) unless they were lifetime users of a particular drug. | Responses for drugs in question TX10 were set to bad data if Rs had previously reported that they never used them. This edit was in keeping with the requirement for asking questions TX11 through TX21 only when Rs were lifetime users. |

*(continued)*

**Exhibit 5 (Continued)**

| Issue | Edits Implemented |
|---|---|
| The R was logically inferred to have received treatment in the past 12 months (TXYREVER=3). Because the R did not originally answer question TX02 as "yes," the CAI program routed the Rs to questions about whether they thought they needed treatment for their use of alcohol or specific drugs (i.e., question TX08 and questions TX11 through TX22). | The following edits were done when TXYREVER=3:<br>● If a question was originally answered as "yes," then the corresponding edited variable was assigned a code of 11 (Yes [TXYREVER=3]). For example, if the R reported needing treatment for alcohol or other drugs (TX08=1), then the edited variable NDTXNEDR was assigned a code of 11. Similarly, if the R reported needing treatment for a specific drug (e.g., prescription stimulants), then the edited variable (e.g., NDTXSTMR) was assigned a code of 11.<br>● If a question was originally answered as "no," then the corresponding edited variable was assigned a code of 12 (No [TXYREVER=3]). For example, if TX08 had been answered as "no" (TX08=2), then NDTXNEDR was assigned a code of 12. (If NDTXNEDR was set to 12, then subsequent variables continued to be assigned legitimate skip codes.) Similarly, if a question about the need for treatment for a specific drug had been answered as" no," then the edited variable was assigned a code of 12.<br>● If the R was inferred to perceive the need for treatment for a drug based on "OTHER, Specify" data, the edited variable was assigned a code of 13. Suppose, for example, that NDTXSTMR had already been coded as 3 because the R had specified prescription-type stimulants as "some other drug" for which the R needed treatment (but question TX19 had not been answered as "yes"). If the R was logically inferred to have received treatment in the past 12 months (TXYREVER=3), then NDTXSTMR was subsequently coded as 13 (Yes LOGICALLY ASSIGNED [TXYREVER=3]).<br>● If the R was a lifetime nonuser of a drug, the edits continued to assign a legitimate skip code. For example, if the R had never used prescription-type stimulants, then NDTXSTMR continued to receive a code of 99 when TXYREVER=3.<br>The rationale for these edits was that Rs would not have been asked questions about their perceived need for treatment for alcohol or specific other drugs if they had originally reported that they received treatment in the past 12 months. The above edits were done to conserve respondents' answers, as opposed to wiping out the data. |

## 3.9 Adult Mental Health Service Utilization Module

The module on Adult Mental Health Service Utilization asked adult respondents about (a) their receipt of specific sources of inpatient or outpatient mental health services in the past 12 months, (b) the length of time that respondents spent in specific inpatient mental health settings or the number of outpatient visits that respondents made to specific types of outpatient mental health providers, (c) payment sources for mental health services, (d) use of prescribed medication for a mental health condition, and (e) unmet demand for services (i.e., the respondent felt the need for mental health services but did not receive them). If the lifetime treatment question TX01 indicated that respondents had received treatment for their use of alcohol or other drugs, respondents were instructed not to include this treatment for their substance use.

Sources of inpatient mental health treatment or counseling that were asked about in the module included (a) a private or public psychiatric hospital, (b) a psychiatric unit within a general hospital, (c) a medical unit within a general hospital, (d) another type of hospital, (e) a residential treatment center, or (f) "some other type of facility." Sources of outpatient mental health treatment or counseling that were asked about in the module included (a) an outpatient mental health clinic or center, (b) the office of a private therapist not associated with a clinic, (c) a doctor's office that was not part of a clinic, (d) an outpatient medical clinic, (e) a partial day hospital or day treatment program, or (f) "some other place."

An important aspect of processing the variables in this section involved assignment of legitimate skip codes, where relevant. That included (a) assignment of legitimate skip codes to variables in the entire module for respondents who were aged 12 to 17, and (b) assignment of legitimate skip codes to adult respondents' data based on routing logic within the Adult Mental Health Service Utilization module. For example, if respondents reported that they did not stay overnight or longer in a hospital or other facility to receive mental health counseling in the past 12 months (AUINPYR=2), all subsequent variables pertaining to inpatient mental health services were assigned legitimate skip codes.

In addition, if respondents did not report receiving treatment in a particular facility or setting in the past 12 months, the questions pertaining to the number of times they received treatment in that setting were skipped. For example, if respondents reported receiving outpatient mental health services in the past 12 months (AUOPTYR=1) but did not indicate that they received outpatient services in a day treatment program, the edited variable pertaining to receipt of day treatment services (AUOPDTMT) was assigned a legitimate skip code. If respondents reported receiving inpatient or outpatient services in one or more locations from the lists they were provided but they did not report receiving services in "some other type of facility" (for inpatient services) or "some other place" (for outpatient services), the edited "OTHER, Specify" variables (AUINYRSP for inpatient and AUOPYRSP for outpatient) were assigned legitimate skip codes.

Similarly, if respondents reported only one source of payment for inpatient or outpatient mental health services, there was no need to ask them who paid for (or would pay for) most of the inpatient or outpatient services that they received. For example, if respondents reported that they received outpatient mental health services in the past 12 months but reported only that private insurance paid for their outpatient mental health services, the edited variable pertaining to the principal payment source (AUPOPMOS) was assigned a legitimate skip code.

In questions pertaining to the specific places where respondents received inpatient or outpatient mental health services in the past 12 months, they were allowed to enter more than one place from the list where they received services. Similarly, respondents could select more than one response from lists of payment sources for their inpatient or outpatient services. Information for each of these mental health service locations or payment sources was subsequently captured as a discrete variable. For example, information about receipt of inpatient mental health services in a psychiatric hospital, the psychiatric unit of a general hospital, the medical unit of a general hospital, another type of hospital, a residential treatment center, or some other type of facility was captured in the variables AUINPSYH, AUINPGEN, AUINMEDU, AUINAHSP, AUINRESD, and AUINSFAC, respectively. Documentation for these "enter all that apply" variables in the Adult Mental Health Service Utilization module was as follows:

1 = Response entered, and

6 = Response not entered.

Codes of 94 and 97 (for "don't know" and "refused," respectively) were assigned to an entire list of variables if respondents did not know or refused to report what specific places they receive mental health services or what specific sources paid (or would pay) for their mental health treatment. If an entire list was blank but respondents had previously reported receiving inpatient services (e.g., if respondents broke off the interview), then the lists of variables pertaining to locations for inpatient services or payment for inpatient services retained a code of 98 (i.e., "blank"); similar logic was applied if

respondents reported receiving outpatient mental health services but the location or payment variables were entirely blank.

A new question (ADMT27) was added to the interview in 2001 to ask respondents to report specific reasons why they did not get mental health treatment if they previously reported in question ADMT26 (edited variable AUUNMTYR) that they felt the need for mental health treatment in the past 12 months but did not get it. This new question ADMT27 was an "enter all that apply" question in which respondents could choose more than one reason from the list. Therefore, if respondents answered ADMT26 as "yes" and were routed to ADMT27, the new variables corresponding to the individual response options in ADMT27 were coded as 1 or 6 (if at least one item was chosen from the ADMT27 list). If AUUNMTYR indicated that there was not a time in the past 12 months when respondents felt the need for mental health treatment but did not receive services (AUUNMTYR=2), the edited variables corresponding to question ADMT27 were assigned legitimate skip codes. Similarly, if AUUNMTYR was refused, that refusal was propagated onto the skipped variables from question ADMT27.

Exhibit 6 discusses additional issues that were relevant to the editing of the Adult Mental Health Service Utilization variables. For example, respondents could report receipt of outpatient mental health services in "some other place" and then specify a location (e.g., a private therapist's office) that they had not already chosen as a place where they received services. In these situations, respondents were logically inferred to have received services at that location. For example, if respondents had not already indicated that they received outpatient mental health treatment in the office of a private therapist, the edited variable AUOPTHER was assigned a code of 3 (Response entered LOGICALLY ASSIGNED).

## 3.10 Social Environment Module

As noted above, the Social Environment module was administered only to adults. This section included questions about neighbors' attitudes about substance use, changes of residence in the past 5 years, characteristics of respondents' living situations (e.g., frequent arguments among people living in the household, behaviors with one's spouse), other social characteristics (e.g., substance use behaviors of friends, personal attitudes about substance use), or personal behaviors (e.g., behaviors with friends or involvement in criminal or potentially criminal activities). New questions were added to the Social Environment module in 2001 that corresponded to the behaviors in the past 12 months that respondents were asked about in the new "item count" questions in the Risk/Availability module (see Section 3.2). In addition, adults were asked about their religious involvement in the past 12 months and opinions about religious issues; these questions had been interviewer-administered prior to 2001.

Minimal processing of data was done to variables in this section. The primary data processing involved assignment of legitimate skip codes based on the CAI routing logic. That included (a) assignment of legitimate skip codes to variables in the entire module for respondents who were aged 12 to 17, and (b) assignment of legitimate skip codes to adult respondents' data based on routing logic within the Social Environment module.

## 3.11 Parenting Experiences Module

The Parenting Experiences module was intended to be administered only in dwelling units where (a) two people had been selected for an interview, (b) a 12 to 17 year old had been selected for an interview (regardless of whether the youth completed the interview), and (c) the respondent being

**Exhibit 6. Edit Issues Pertaining to the Adult Mental Health Service Utilization Variables**

| Issue | Edits Implemented |
|---|---|
| Respondents (Rs) did not choose an outpatient treatment location from a list, but that location was specified as a source of outpatient mental health treatment in the past 12 months. | The edited variable corresponding to receipt of outpatient treatment at that location was assigned a code of 3 (Response entered LOGICALLY ASSIGNED). For example, if an R did not report receiving outpatient mental health counseling at the office of a private therapist, reported receiving outpatient counseling in "some other place," and specified something to indicate that he or she received counseling from a private therapist, the edited variable AUOPTHER was assigned a code of 3. |
| Rs reported receiving mental health services in every inpatient or outpatient location in a list. | The entire set of variables corresponding to the service locations were assigned bad data codes. For example, if Rs reported receiving outpatient mental health services in the past 12 months and reported receiving outpatient services in every location they were asked about, the edited variables AUOPMENT, AUOPTHER, AUOPDOC, AUOPCLNC, AUOPDTMT, and AUOPOTOP were assigned bad data codes (i.e., outpatient treatment or counseling in a mental health clinic, at the office of a private therapist, at a doctor's office, at an outpatient medical clinic, in a day treatment program, or in some other place, respectively). |
| Rs reported at least one of the following: (a) they stayed overnight as an inpatient for mental health treatment in a particular type of facility for all 365 days in the past 12 months, or (b) they stayed overnight as an inpatient in more than one type of facility, and the total number of nights that they stayed as inpatients summed to 365 or more. | No editing was done when these patterns occurred. |
| Rs did not choose a payment source for their mental health treatment but subsequently indicated that this was (or would be) the principal payment source. | The edited payment source variable was assigned a code of 3 (Response entered LOGICALLY ASSIGNED). For example, if an R did not report that private health insurance paid or would pay for outpatient treatment but then reported that private insurance was (or would be) the principal source of payment, the edited variable AUPOPINS (private health insurance paid/will pay for any outpatient mental health treatment) was assigned a code of 3. |
| Rs reported a specific source of payment for their services but also reported that "No one paid because the treatment was free." | No editing was done because these responses were not necessarily inconsistent. Rs could have received services in more than one setting or from more than one provider, with some services being free and other services requiring payment. |

interviewed was the parent or legal guardian of the 12 to 17 year old who also was selected for an interview. Editing of the Parenting Experiences data first involved editing the field interviewer (FI) checkpoint variables (FIPE1, FIPE2, and FIPE3) completed by the interviewers toward the beginning of the interview. The variables in the Parenting Experiences module were then edited based on the final values assigned to the edited FIPE variables. Except for updates to reflect changes to the skip logic for FIPE3, the edits for Parenting Experiences variables did not change in 2001.

### 3.11.1 Editing of the Field Interviewer Checkpoint Variables

Interviewers were instructed to enter into these checkpoints the relevant information described above for determining whether respondents were eligible to be administered the Parenting Experiences questions. These checkpoint variables were edited for consistency with the pair-selection and pair-respondent sample variables (PAIRSEL and PAIRRESP, respectively). These checkpoints were interviewer administered and not self-administered. Editing of these checkpoints was conducted as part of the edits for the Parenting Experiences questions (which were self-administered), however, because the final values in the edited checkpoints were critical for determining whether respondents were in fact eligible to be asked the Parenting Experiences questions.

*Editing of the FIPE1 checkpoint (and related edits)*. First, the FIPE1 variable was edited for consistency with the pair-selection variable PAIRSEL. Specifically, this checkpoint pertained to whether two people were selected for an interview at that sampled dwelling unit (SDU). There were no situations in 2001 when two people were interviewed at a given SDU without two people having first been selected. Therefore, editing of FIPE1 involved review only of information on the number of people selected for an interview at that SDU based on PAIRSEL.

If the pair-selection data indicated that two people were selected from that SDU, then FIPE1 should have been answered as "yes." Therefore, if the pair-selection data indicated that two people were selected and FIPE1 was not answered as "yes," a code of 3 (i.e., Yes LOGICALLY ASSIGNED) was assigned to the edited FIPE1 variable (SKPX2PER). Similarly, if the pair-selection data indicated that only one person was selected from that SDU, then FIPE1 should have been answered as "no." Therefore, if the pair-selection data indicated that only one person was selected and FIPE1 was not answered as "no," the editing procedures logically inferred that "no" should have been the answer. If the edited version of FIPE1 indicated that two people were not selected for an interview, then the edited versions of FIPE2 (SKPX1217) and FIPE3 (SKPXPRNT) were assigned legitimate skip codes. If data existed in FIPE2 or FIPE3 when the edited SKPX2PER was inferred to be answered as "no," SKPX1217 and SKPXPRNT were assigned codes of 89 (i.e., LEGITIMATE SKIP Logically assigned) to signify that these two checkpoints should have been skipped.

*Editing of the FIPE2 checkpoint (and related edits)*. Next, FIPE2 was edited for consistency with PAIRSEL, PAIRRESP, and the age of the respondent. Specifically, this checkpoint pertained to whether a 12 to 17 year old was selected for an interview at that SDU, *regardless of whether the selected youth actually responded*. Edits of the FIPE2 checkpoint data involved review of both the pair-selection data (PAIRSEL) and the pair-respondent data (PAIRRESP) in case either indicated that a 12 to 17 year old was selected or interviewed.

The age of the respondent was taken into account because interviewers were skipped past this checkpoint if respondents were aged 12 to 17. Therefore, the edited version of FIPE2 (SKPX1217) was assigned legitimate skip codes (i.e., 99 if FIPE2 was blank and 89 if FIPE2 was not blank) when the respondent was a youth.

The remaining edits for FIPE2 were implemented when the respondent was an adult. If both PAIRSEL and PAIRRESP indicated that a 12 to 17 year old was neither selected nor interviewed, it could be reasonably inferred that FIPE2 should have been answered as "no." If FIPE2 was not already answered as "no," the edits assigned a code to SKPX1217 to indicate that a response of "no" was logically inferred. This included situations in which the pair-selection data indicated that a 12 to 17 year old was not selected, and a completed interview was obtained from only one respondent, who was not aged 12 to 17, regardless of whether PAIRSEL and PAIRRESP were totally consistent. For example, if the pair-selection data indicated that an 18 to 25 year old and a 26 to 34 year old were selected but a single interview was obtained from a 35 to 49 year old, the pair-selection and pair-respondent data were not totally consistent, but neither would suggest that a 12 to 17 year old should have been selected. When the edited SKPX1217 indicated that a 12 to 17 year old was not selected, including situations described above in which the edits inferred that no 12 to 17 year old was selected, then legitimate skip codes were assigned to the edited variable SKPXPRNT corresponding to FIPE3 (code of 99 if FIPE3 was blank; or 89 if it was not blank).

If either PAIRSEL or PAIRRESP indicated that a 12 to 17 year old was selected or interviewed, it could be inferred that FIPE2 should have been answered as "yes." Therefore, if FIPE2 was not already answered as "yes," a special code was assigned to SKPX1217 to indicate that a response of "yes" was logically inferred. This included the following situations: (a) PAIRSEL indicated that a 12 to 17 year old was selected and PAIRRESP indicated that an interview was obtained from a 12 to 17 year old, regardless of whether PAIRSEL and PAIRRESP matched exactly (e.g., a 12 to 17 year old and a 26 to 34 year old were selected but interviews were obtained from a 12 to 17 year old and a 35 to 49 year old); and (b) PAIRSEL indicated that a 12 to 17 year old was selected but a single interview from an adult was obtained at the SDU, regardless of whether the adult category from PAIRSEL matched the category in PAIRRESP (e.g., a 12 to 17 year old and 26 to 34 year old were selected but a single interview was obtained from a 35 to 49 year old). In the latter situation, the respondent result (from PAIRRESP) was not totally consistent with what would be expected based on the pair selection, but PAIRRESP would not provide any information to directly contradict the indication from PAIRSEL that a 12 to 17 year old was selected.

If PAIRSEL and PAIRRESP disagreed when two people were interviewed, with one indicating the selection or interview of a 12 to 17 year old but the other variable did not, then special codes were assigned to SKPX1217. When this type of inconsistency occurred, a code of 11 was assigned to SKPX1217 when FIPE2 was originally answered as "yes," and a code of 12 was assigned when FIPE2 was originally answered as "no."

Suppose, for example, that PAIRSEL indicated that a 12 to 17 year old and 35 to 49 year old were selected for the interview but PAIRRESP indicated that an 18 to 25 year old and 35 to 49 year old were actually interviewed, with the interviewer keying FIPE2=1 in the adult's interview (i.e., "yes," a 12 to 17 year old was selected for an interview at this SDU). In this situation, the "yes" in FIPE2 was consistent with who was *selected* (according to the information provided by the screening respondent), but it was not consistent with the ages provided by the respondents themselves. Therefore, the edited variable SKPX1217 would be set to a value of 11 in this example.

This latter edit preserved the information that the interviewer originally entered but also denoted that an inconsistency existed between PAIRSEL and PAIRRESP. This edit also was designed to preserve any possible Parenting Experiences data when both FIPE2 and FIPE3 (see below) were answered as "yes" but there was an inconsistency between PAIRSEL and PAIRRESP. When an inconsistency occurred between PAIRSEL and PAIRRESP, an analyst would have discretion about whether to use Parenting Experiences data in an analysis.

*Editing of the FIPE3 checkpoint.* This checkpoint pertained to whether the respondent was the parent or legal guardian of the 12 to 17 year old who also was selected to be interviewed at that SDU. A refinement to the skip logic in the 2001 NHSDA skipped respondents out of both FIPE2 and FIPE3 when respondents were 12 to 17, and these youths would not have an opportunity to be routed into the Parenting Experiences module. Therefore, when FIPE3 had been skipped because the respondent was 12 to 17, the edited FIPE3 variable SKPXPRNT was assigned a legitimate skip code.

No further editing of FIPE3 was done when PAIRSEL indicated that a 12 to 17 year old was selected and PAIRRESP had some result *other than* that of two adults having been interviewed at that SDU. The rationale for this approach was that FIPE3 was based on who the actual respondent was,

provided that a 12 to 17 year old was selected. For example, if PAIRSEL indicated that a 12 to 17 year old and a 26 to 34 year old were selected but a 35 to 49 year old and 12 to 17 year old were interviewed, and FIPE3 was answered as "yes" (i.e., this adult respondent is the parent of the youth who was selected), that 35 to 49 year old respondent may indeed have been a parent or legal guardian of the youth who was selected. This principle also would have held if the selected youth did not respond. Therefore, any data that were present in the Parenting Experiences module would be preserved.

In contrast, the following situations could occur when FIPE3 was inconsistent with either PAIRSEL or PAIRRESP: (a) PAIRSEL indicates that a youth/adult pair was selected but two adult interviews were obtained at that SDU; or (b) PAIRRESP indicated that a youth/adult pair was interviewed but PAIRSEL indicated that an adult/adult pair was selected. When either of these inconsistencies occurred, a code of 11 was assigned to SKPXPRNT when FIPE3 was originally answered as "yes," and a code of 12 was assigned when FIPE3 was originally answered as "no."

Suppose, for example, that PAIRSEL indicated that an 18 to 25 year old and 35 to 49 year old were selected for the interview but PAIRRESP indicated that a 12 to 17 year old and 35 to 49 year old were actually interviewed, and the interviewer keyed FIPE2=1 and FIPE3=1 in the adult's interview. Stated another way, the interviewer indicated that "yes," a 12 to 17 year old was selected for an interview at this SDU, and "yes," this 35- to 49-year-old respondent was the parent of the 12- to 17-year-old youth who was selected. In this situation, FIPE3 was consistent with PAIRRESP but not PAIRSEL. Furthermore, based on who was interviewed at that SDU, the 35 to 49 year old may indeed be the parent of the 12 to 17 year old who also was interviewed at that SDU. In this situation, the edited SKPXPRNT would be set to a value of 11 to denote that this type of inconsistency has occurred. Again, this edit would preserve any possible Parenting Experiences data—especially in situations in which an adult/child *respondent* pair was obtained.

### 3.11.2 Editing of the Variables in the Parenting Experiences Module

The variables in the actual Parenting Experiences module were edited according to the final values assigned to SKPX2PER, SKPX1217, and SKPXPRNT based on the edits described above. In particular, if the above three variables indicated that the respondent was not eligible to be administered the Parenting Experiences questions, then the edits assigned the appropriate legitimate skip codes to the Parenting Experiences variables. This included replacing blank values with legitimate skip codes when a code of 12 had been assigned SKPXPRNT and the Parenting Experiences module has been skipped. The rationale for this latter edit was that even if FIPE3 was answered as "no" when PAIRSEL and PAIRRESP were inconsistent, the adult respondent still may not have been the parent or legal guardian of the youth who also was selected for an interview at that SDU.

Conversely, if a respondent had been skipped out of the Parenting Experiences module and the edited FIPE variables SKPX2PER, SKPX1217, or SKPXPRNT indicated that the respondent was *potentially* eligible to be administered the Parenting Experiences questions (i.e., the respondent skipped the module based on the original answers in the FIPE questions but other data suggested that the respondent may have been eligible to be asked these questions), then the edited Parenting Experiences variables retained a value of "blank." For example, if FIPE2 had been keyed as "no" and it was inferred for SKPX1217 that a 12 to 17 year old was selected (i.e., SKPX1217=3), then FIPE3 and the Parenting Experiences questions also would have been skipped. In this situation, the respondent's eligibility or ineligibility to be administered the Parenting Experiences questions could not be determined because the field interviewer (FI) was not routed to the final checkpoint. Therefore, it could not be determined

whether the respondent should have been asked the Parenting Experiences questions or should have skipped.

There was one set of variables that involved skip logic within the Parenting Experiences module. Specifically, respondents were skipped out of question PE04 (length of most serious discussion about the dangers of tobacco/alcohol/other drug use) when question PE03 had a value of 1 (i.e., talked with child 0 times in the past year about the dangers of tobacco/alcohol/other drug use), or if PE03 was answered as "don't know" or "refused." Standard procedures for assigning legitimate skip codes or propagating refusal codes were implemented in the edited version of question PE04 (PXSERDIS) depending on the response in PE03 (edited variable PXKIDYR).

Parents were asked to report the birth date of the youth who was selected for an interview at that dwelling unit (question PE01). However, the birth year that respondents could enter for the youth in question PE01 was restricted to ages that would be more consistent with selection of a 12 to 17 year old (but also allowed for birth dates that would include 18 year olds, in case a 17-year-old respondent just recently had a birthday). Thus, respondents were prevented from entering birth dates that would be extremely inconsistent with selection of a 12 to 17 year old (such as entry of the current interview year for the birth year).

The CAI program also calculated an age for the youth who was selected for an interview based on the youth's date of birth (as reported by the parent) and the interview date at the start of the Parenting Experiences module. Respondents were asked to confirm this age (question PE01a). If parents did not confirm the age that the CAI program calculated for the youth, they were asked to provide a corrected age for the youth who was selected for an interview (question PE01b). Similarly, if respondents did not know or refused to report the date of birth of the selected youth, they were asked to report an age in question PE01b without having to indicate the youth's date of birth.

This information was captured in the created variable PXCHLDAG. Specifically, PXCHLDAG contained the age based on the reported date of birth for the youth and the interview date (if respondents confirmed that this age was correct), or else PXCHLDAG contained the age supplied by the respondent from question PE01b. If respondents supplied a corrected age for the youth in question PE01b that was between 12 and 18 and it mismatched the age of the youth that was calculated from the birth date and interview date information, the edited variables containing the birth date information for the youth (PXBMONTH, PXBDAY, and PXBYR) were assigned bad data values. If respondents answered question PE01b as "don't know" or "refused" when they were asked to provide a corrected age for the selected youth, that response of "don't know" or "refused" was assigned to PXCHLDAG.

In addition, a recoded variable (PXCMPAGE, for "compare age") was created that compared the selected youth's age (from PXCHLDAG) with the respondent's age for the second interview conducted at that SDU. If two interviews were obtained at that SDU and a 12 to 17 year old was selected for an interview, then PXCMPAGE was calculated as the absolute value of the difference between PXCHLDAG and the actual age of the second respondent, within defined categories (i.e., 0 year difference in ages; 1 year difference in ages; 2 year difference in ages; 3 to 4 year difference in ages; and 5 or more year difference). If the adult respondent answered "don't know" or "refused" to the question about the youth's date of birth, or if the youth's date of birth information was set to bad data because of invalid dates, these codes were reflected in PXCMPAGE.

For the large majority of cases where an interview was obtained from a 12 to 17 year old, PXCMPAGE indicated no difference between the age based on the date of birth reported by the parent and the youth's age recorded in the second interview at that SDU. Nevertheless, information about more extreme differences in ages as recorded by PXCMPAGE (e.g., a difference of 2 or more years between the two ages) could be used by analysts in deciding whether to use the Parenting Experiences data in an analysis. When the second interview was from an 18 year old, PXCMPAGE was assigned a value of 18. When the second interview was from an adult older than age 18 (i.e., and the parent was supposed to be reporting about a 12 to 17 year old), the edit program assigned a code of 50 to PXCMPAGE. (No cases in 2001 were assigned this code of 50 in PXCMPAGE.) Again, these codes were designed to give analysts discretion in using or disregarding Parenting Experiences data when the second interview at an SDU came from an adult.

If a 12 to 17 year old was supposed to be selected at a given SDU but only the adult was interviewed, PXCMPAGE was assigned a code of 93. This code was assigned because there were no data to corroborate the youth's date of birth reported by the parent.

If the edited FIPE variables from above indicated that the respondent was not eligible to be administered the Parenting Experiences questions, then PXCMPAGE was assigned a code of 99 (i.e., legitimate skip). That included situations in which the edited FIPE3 was assigned a code of 12 because of an inconsistency between PAIRSEL and PAIRRESP, and the Parenting Experiences module had been skipped (see above). Otherwise, if the Parenting Experiences module was all blank or if PXCMPAGE was undefined for some other reason, then PXCMPAGE was assigned a code of 98. This code of 98 in PXCMPAGE meant "other missing."

### 3.12 Youth Experiences Module

As noted above, the Youth Experiences module was administered only to respondents aged 12 to 17. This section included questions about changes of residence in the past 5 years, school enrollment and related issues (e.g., opinions about the importance of assigned schoolwork) in the past 12 months, including home schooling, other social and family characteristics (e.g., substance use behaviors of other students or friends, personal attitudes about substance use, parental attitudes about substance use), people with whom the youth could confide about a serious problem, exposure to alcohol- and other drug-related prevention messages in school or outside school, personal behaviors (e.g., involvement in criminal or potentially criminal activities, involvement in extracurricular activities) that might be positively or negatively associated with use of alcohol or other drugs, sources of cigarettes (for youths who smoked cigarettes or specialty cigarettes in the past 30 days), or use of cigars containing marijuana. New questions were added to the Youth Experiences module in 2001 that corresponded to the behaviors in the past 12 months that respondents were asked about in the new "item count" questions in the Risk/Availability module (see Section 3.2). In addition, youths were asked questions about their religious involvement in the past 12 months and opinions about religious issues; these questions had been interviewer-administered prior to 2001.

Minimal processing of data was done to variables in this section. The primary data processing involved assignment of legitimate skip codes based on the CAI routing logic. That included (a) assignment of legitimate skip codes to variables in the entire module for respondents who were aged 18 or older, and (b) assignment of legitimate skip codes to youths' data based on routing logic within the Youth Experiences module.

For example, an important aspect of processing variables pertaining to the sources of cigarettes that respondents had smoked involved taking into account the skip logic governing whether the questions were asked or skipped. In particular, if the edited recency variables CIGREC, BIDIREC, and CLOVREC all indicated that respondents had never smoked cigarettes or specialty cigarettes (CIGREC=91 and BIDIREC=91 and CLOVREC=91), these edited cigarette variables in the Youth Experiences module were assigned codes of 91 (Section 2.1.1). Similarly, if the recency variables CIGREC, BIDIREC, and CLOVREC all indicated unambiguously that respondents had smoked cigarettes or specialty cigarettes at least once in their lifetime but not in the past 30 days, these edited Youth Experiences variables were assigned codes of 93. If the cigarette questions in the Youth Experiences module had been skipped but the respondent was potentially a past month user of cigarettes or specialty cigarettes, the skipped Youth Experiences variables retained a value of "blank"; that could include situations in which respondents reported last smoking a cigarette more than 30 days ago but at least one of the Specialty Cigarettes recency variables BIDIREC or CLOVREC did not indicate unambiguously that the respondent last smoked specialty cigarettes more than 30 days ago. As an example of an edit when respondents had smoked cigarettes or specialty cigarettes in the past 30 days, if youths reported that they bought cigarettes "0 times" in *all* of the questions where they were asked about cigarette purchases, the following variables were assigned legitimate skip codes: YEPKCRTN (whether respondents bought cigarettes by the pack or carton), YEPDPACK (the price paid for the last pack of cigarettes bought), and YEPDCRTN (the price paid for the last carton of cigarettes bought).

Youths also were asked in 2001 about use of cigars containing marijuana. All youths were asked whether they had ever smoked part or all of a cigar with marijuana in it, also known as a "blunt" or "blob" (edited variable YEBLNTEV). If youths reported that they had smoked part or all of a cigar with marijuana in it, they were asked whether they did so in the past 30 days (edited variable YEBLNT30). Youths who smoked part or all of a cigar with marijuana in it in the past 30 days were asked to report the number of days that they did so in the past 30 days (edited variable YEBL30FQ).

Because all youths were eligible to be asked these questions, these variables were not edited with respect to cigar or marijuana use data from the core drug modules. Consequently, some data in these edited Youth Experiences variables could be inconsistent with cigar and marijuana use data from the core modules.

If respondents reported that they had not smoked a cigar with marijuana in it (YEBLNTEV=2), the edited variables YEBLNT30 and YEBL30FQ were assigned legitimate skip codes. Similarly, if respondents reported that they had ever smoked a cigar in their lifetimes but not in the past 30 days (YEBLNT30=2), the edited variable YEBL30FQ was assigned a legitimate skip code.

If youths reported that they had smoked a cigar in the past 30 days, they were allowed to report that they did so on "0 days" in the past 30 days. When this occurred, the variable YEBLNT30 was assigned a code of 11. This was done to indicate to analysts that respondents had reported smoking a cigar with marijuana in the past 30 days but a potential inconsistency existed with respect to the 30-day frequency variable YEBL30FQ.

The Youth Experiences module also contained a question for youths who reported in the core Tobacco module that they smoked part of all of a cigar in the past 30 days. These youths were asked whether they replaced any of the tobacco in these cigars with marijuana (edited variable YECGRWMJ). If the cigar recency CIGARREC indicated that respondents had never smoked a cigar (CIGARREC=91), the

edited variable YECGRWMJ was assigned a code of 91. Similarly, if the cigar recency variable CIGARREC indicated unambiguously that respondents had smoked cigars but not in the past 30 days, YECGRWMJ was assigned a code of 93. If this cigar question had been skipped but the respondent was potentially a past month cigar user, YECGRWMJ retained a value of "blank."

Because the logic for asking this question did not take into account whether respondents had used marijuana in the past 30 days, YECGRWMJ was not edited with respect to the marijuana recency (MJREC). Consequently, some data in YECGRWMJ could be inconsistent with data from MJREC.

In addition, some special issues were encountered in editing the variables corresponding to question YE22, which pertained to people whom youths could turn if they had a serious problem. Specifically, youths were asked to enter all the different types of people to whom they could turn (e.g., a parent, a friend, a neighbor). This question also included a response category for youths who felt that there was no one they could talk to about a serious problem.

For variables indicating the youths' relationships to people whom they could turn to if the youths had a serious problem, the following codes were assigned through machine editing:

1 = Response entered, and

6 = Response not entered.

If the entire list of responses was blank (e.g., if a youth broke off the interview before getting to these questions), the edited variables retained a code of "blank."

Youths could indicate that there was no one they could talk to about a serious problem but then indicate that they could talk to one or more of the people or types of people in the list from question YE22. In this situation, the variable pertaining to the first item in the list ("There is nobody I can talk to about a serious problem") was assigned a code of 11 (if that response was chosen along with another response from the list). Similarly, codes of 11 were assigned to the edited relationship variables (e.g., my mom, my dad) when they were chosen along with the response that there was nobody that the youth could talk to.

### 3.13 Serious Mental Illness Module

The Serious Mental Illness module was new in 2001 and was administered to adult respondents. Adults were asked questions about mental health issues that could suggest the presence of serious mental illness in the past 12 months. Respondents were asked questions about panic attacks, depressive episodes, bipolar or manic episodes, specific phobias, generalized anxiety, posttraumatic stress, delusional behavior or experiences, use of mental health services and taking of prescribed medications for mental health problems, emotional distress, impaired functioning in terms of performing daily activities, and whether mental health services that respondents received helped to improve their functioning.

Minimal processing of data was done to variables in this section. The primary data processing involved assignment of legitimate skip codes based on the CAI routing logic. That included (a) assignment of legitimate skip codes to variables in the entire module for respondents who were aged 12 to 17, and (b) assignment of legitimate skip codes to adult respondents' data based on routing logic within the questions pertaining to specific mental health problems.

For example, if respondents reported that they did not have a sudden attack of fear in the past 12 months that would be indicative of a panic attack (edited variable PANATAK coded as 2), the edited variables PANREAC (physical reactions, such as sweating, shortness of breath, heart racing, or dizziness) and PANATKNO (the number of these attacks that respondents had in the past 12 months) were assigned legitimate skip codes. Similarly, the logic for asking respondents about their worst fear (edited variable PHBWRSFR, corresponding to question PHWORST) required respondents to have answered at least two out of four previous questions about specific fears as "yes." Thus, if a respondent answered three of the four questions as "no" and answered the remaining question as "don't know" or "refused," it was still possible to assign legitimate skip codes to the edited "worst fear" variables PHBWRSFR, PHBWRSST, PHBWRSAV, and PHBWRSIN. Even if the respondent had answered the one remaining question as "yes" instead of answering it as "don't know" or "refused," that would not have been sufficient to route the respondent into questions about the specific fear that was the worst.

In addition, the logic for determining whether respondents should be routed into questions about functional impairment was based on reports of symptoms of mental health disorder, distress, or mental health treatment. In turn, reports of symptoms of mental health disorder, distress, or treatment were based on responses to more than 30 individual variables, including some variables from the Adult Mental Health Service Utilization module. Positive criteria in these variables routed respondents into the functional impairment questions. Otherwise, respondents were skipped out of these questions. With such a large number of variables, however, a single response of "don't know" or "refused" to a key criterion would cause respondents to be skipped out of the impairment questions. Therefore, the logic discussed below was used to determine how to edit the impairment variables when respondents had been skipped out of these questions in the absence of a positive symptom.

- If respondents did not have any responses of "don't know" or "refused" to *all* variables that governed the skip logic for the impairment questions, the edited impairment variables were assigned legitimate skip codes.
- Otherwise, if respondents had at least one refusal in the variables governing the skip logic, the edited impairment questions were assigned refusal codes.
- If neither of the above two criteria were met (e.g., at least one response of "don't know" was present in one of the questions governing the skip logic), the edited impairment variables retained a value of "blank."

For the variables pertaining to bipolar or manic episodes, respondents who reported experiencing a manic episode in the past 12 months (edited variable MNCHYPER=1) were not asked questions pertaining to lifetime occurrence of these episodes (edited variable MNCEVER) or taking medication in the past 12 months to prevent one of these episodes from occurring (edited variable MNCMEDS). Therefore, when MNCHYPER=1, the skipped variables MNCEVER and MNCMEDS were assigned a code of 5. For MNCEVER, documentation of level 5 was as follows:

5 = Yes LOGICALLY ASSIGNED (MNCHYPER=1).

For MNCMEDS, documentation of level 5 was as follows:

5 = Hyper in the past 12 months LOGICALLY ASSIGNED (MNCHYPER=1).

In addition, if respondents did not know or refused to report whether they felt so excited or hyper in the past 12 months that a doctor said they were manic but they reported that they never had a period of 4 or more days like this in their lifetime (MNCEVER=2), it was possible to infer that these respondents did not have a period like this in the past 12 months. In this situation, the past year variable MNCHYPER was assigned a code of 4 (No LOGICALLY ASSIGNED).

In the Serious Mental Illness questions pertaining to services, respondents could report that they saw a doctor for mental health problems in the past 12 months (MHSEEDR=1) but then report that they were not hospitalized overnight for mental health problems in the past 12 months (MHHOSPOV=2) and that they had no outpatient mental health visits to a doctor or other mental health professional in the past 12 months (MHOPNUM=0). When this pattern occurred, MHSEEDR was edited to a value of 11, and MHHOSPOV was edited to a value of 12. These codes were designed to indicate to analysts that the report of mental health services in the past 12 months in MHSEEDR was not supported by any indication of inpatient or outpatient mental health treatment. No editing was done to the variable MHOPNUM because this was a continuous variable that could have values ranging from 0 to 365. Consistent with the general principles of editing the 2001 NHSDA data,[8] these mental health service variables MHSEEDR, MHHOSPOV, MHOPNUM, MHMEDS (pertaining to taking prescribed medication in the past 12 months for a mental health problem), and MHMEDWK (number of weeks that respondents took prescribed medication) were not edited for consistency with service utilization variables in the Adult Mental Health Service Utilization module because the logic for asking the questions pertaining to MHSEEDR through MHMEDS was not contingent on how the Adult Mental Health Service Utilization questions had been answered.

In addition, no editing was done when respondents reported that they had been prescribed medication for a mental health problem in the past 12 months (MHMEDS=1) but they reported taking this prescribed medication for 0 weeks (MHMEDWK=0). In this situation, a respondent being prescribed medication for a mental health problem did not necessarily mean that the respondent filled the prescription or took any of the medication.

### 3.14 Youth Mental Health Service Utilization Module

The module on Youth Mental Health Service Utilization asked respondents aged 12 to 17 about their receipt of specific sources of inpatient, foster care, outpatient, or school-based mental health services in the past 12 months; the number of nights that respondents spent in specific inpatient or foster care mental health settings; the number of times they visited specific types of outpatient or school-based mental health providers; and the reasons for receiving inpatient, foster care, outpatient, or school-based services for mental health problems the last time they received such services. Specific sources of mental health services that respondents were asked about included (a) any type of hospital, (b) a residential treatment center, (c) foster care or a therapeutic foster home, (d) a partial day hospital or day treatment program, (e) a mental health clinic or center, (f) a private therapist, (g) an in-home therapist, (h) a pediatrician or other family doctor, (i) special education services, and (j) in-school counseling, such as

[8]Kroutil, L. A. (2003, June). *2001 National Household Survey on Drug Abuse: General principles and procedures for editing drug use data in the 2001 NHSDA computer-assisted interview* (for inclusion in the 2001 methodological resource book; report prepared for Office of Applied Studies, Substance Abuse and Mental Health Services Administration, under Contract No. 283-98-9008, Deliverable No. 28; RTI/07190.395). Research Triangle Park, NC: RTI International.

from school counselors or school psychologists. The content of this module and the associated edits in 2001 were basically unchanged relative to 2000.

An important aspect of processing the variables in this section involved assignment of legitimate skip codes, where relevant. That included (a) assignment of legitimate skip codes to variables in the entire module for respondents who were aged 18 or older, and (b) assignment of legitimate skip codes to youths' data based on routing logic within the Youth Mental Health Service Utilization module. For example, if respondents reported that they did not stay overnight or longer in a hospital to receive mental health counseling in the past 12 months (YUHOSPYR=2), all subsequent variables pertaining to mental health services in a hospital were assigned legitimate skip codes. That included the number of nights that respondents stayed in a hospital and the reasons that they were hospitalized the last time.

Although respondents in the Youth Experiences module who reported that they were not enrolled in school in the past 12 months were asked whether they were home schooled during this period, the Youth Experiences variable pertaining to home schooling (YEHMSLYR, corresponding to question YE09a) was not used to edit Youth Mental Health Service Utilization variables pertaining to receipt of school-based mental health services. Only the Youth Experiences variable pertaining to school enrollment in the past 12 months (YEATNDYR, corresponding to question YE09) was used to edit these school-based service variables.

If respondents reported that they stayed overnight or longer in foster care or in a therapeutic foster care home in the past 12 months for emotional or behavioral problems, they were not asked whether they had ever been in foster care. Therefore, the edited variable pertaining to foster care in the lifetime (YUFCAREV) was assigned a code of 5 (Yes LOGICALLY ASSIGNED [from skip pattern]). This code of 5 indicated that it could be logically inferred that respondents had ever been in foster care because they reported being in foster care in the past 12 months.

Similarly, if the variable pertaining to foster care in the past 12 months (YUFCARYR) initially had a missing value (e.g., if respondents did not know or refused to report whether they stayed in foster care in the past 12 months) but respondents reported that they had never been in foster care (YUFCAREV=2), it could be inferred that these respondents had not been in foster care in the past 12 months. In these situations, the edited variable YUFCARYR was assigned a final code of 4 (No LOGICALLY ASSIGNED). The remaining variables related to foster care in the past 12 months (YUFCARNM, YUFCSUIC, YUFCDEPR, YUFCFEAR, YUFCBKRU, YUFCEATP, YUFCSOR, and YUFCOTS1 through YUFCOTS5) were assigned legitimate skip codes.

For each type or location of mental health treatment or counseling that respondents were asked about, they could report that they received services the last time at that particular location for any of the following reasons: (a) they thought about or tried to kill themselves, (b) they felt depressed, (c) they felt very afraid or tense, (d) they were breaking rules or "acting out," (e) they had eating problems, or (f) some other reason. For each mental health service location where youths received services, information on these reasons for receiving services was subsequently captured as a discrete variable. For example, if respondents reported receiving mental health counseling from a pediatrician or family doctor, information about why they received counseling the last time was captured in the variables YUFDSUIC (suicidal), YUFDDEPR (depressed), YUFDFEAR, YUFDBKRU (breaking rules), YUFDEATP (eating problems),

and YUFDSOR (some other reason). Documentation for these "enter all that apply" variables in the Youth Mental Health Service Utilization module was as follows:

1 = Response entered, and

6 = Response not entered.

No further editing was done if respondents endorsed every single reason on a list as pertaining to why they received mental health services at a given location in the past 12 months.

Codes of 94 and 97 (for "don't know" and "refused," respectively) were assigned to an entire list of variables if respondents did not know or refused to report why they received counseling at a specific location in the past 12 months. If an entire list of reasons was blank but respondents had previously reported receiving services at a given location (e.g., if respondents broke off the interview), then the list of reasons for receiving services at that location retained a code of 98 (i.e., "blank").

If respondents reported receiving services for some other reason, they were asked to specify the reason. Some respondents gave a considerable amount of information in the space that was allotted to them to specify their other reason(s) for receiving services. Often, multiple reasons were reported. Rather than make an arbitrary choice in assigning a single code from respondents' answers, we assigned up to five separate "specify" codes based on respondents' explanations regarding why they received services. If respondents gave an answer indicating a reason that they had already been asked about, that reason was logically inferred to be a reason that they received mental health treatment or counseling at a given location. For example, if respondents had not previously indicated that they received counseling from a therapist because they felt depressed but they reported this as part of an explanation of "some other reason," the edited variable YUTPDEPR (visited a therapist because the respondent felt depressed) was assigned a code of 3 (Response entered LOGICALLY ASSIGNED).

In a relatively rare number of situations (fewer than 25 out of approximately 2,000 responses), youths denied receiving mental health services as part of an "OTHER, Specify" response. In these situations, the "OTHER, Specify" response was assigned a bad data code. Data were retained that indicated that the youths received mental health services in a given location in the past 12 months.

If respondents gave one or more reasons for receiving mental health services at a given location but they did not choose the "some other reason" category, all five "OTHER, Specify" variables pertaining to other reasons for receiving services at that location were assigned legitimate skip codes. For example, if respondents reported that they received mental health counseling from a private therapist in the past 12 months, and they chose a reason from the available list to explain why they received counseling from a therapist but they did not choose "some other reason," the "OTHER, Specify" variables YUTPOTS1 through YUTPOTS5 were assigned legitimate skip codes.

Respondents could report that the number of nights they stayed overnight in a hospital or residential treatment program in the past 12 months (or the sum of the two, if respondents reported staying in both settings) was greater than or equal to 365 nights. In these situations, no editing was done to the data.